

Oceanographic and Biological Data, Hawaiian Waters, January — October 1959

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UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

United States Department of the Interior, Stewart Udall, Secretary
Fish and Wildlife Service, Clarence F. Pautzke, Commissioner
Bureau of Commercial Fisheries, Donald L. McKernan, Director

OCEANOGRAPHIC AND BIOLOGICAL DATA, HAWAIIAN WATERS,

JANUARY - OCTOBER 1959

By

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and
Robert P. Brown, Oceanographer
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Honolulu, Hawaii



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ABSTRACT

This report contains the biological and oceanographic data collected during five cruises in the central North Pacific by the Bureau of Commercial Fisheries research vessels Hugh M. Smith and Charles H. Gilbert. Participating scientists collected oceanographic and biological data designed to determine the distribution of surface water types and the associated biota, particularly skipjack tuna Katsuwonus pelamis (Linnaeus). The area investigated was between longitudes 155° and 170° W. at latitudes 15° to 26° N.

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During 1959 there were five cruises in the central Pacific area between latitude 15° N. and 26° N., longitude 145° W. to 170° W. (table 1; fig. 1) by research vessels of the Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii.

The purpose of these cruises was two-fold: (1) to delineate the boundaries between the North Pacific Central, the zone of intermediate salinity, and the North Pacific Equatorial water types^{1/}; and (2) to monitor the seasonal movements of those boundaries and of the associated marine biota, particularly the skipjack tuna, Katsuwonus pelamis (Linnaeus).

The present report contains a record of observed physical and biological data from the five 1959 cruises. They are presented without analysis.

FIELD PARTY PERSONNEL

Hugh M. Smith - Robert E. K. D. Lee, Acting Master

Cruise 50

Gunter R. Seckel, Field Party Chief
Daniel T. Yamashita, Fishery Research Biologist

^{1/} Seckel (1961, in press) discusses the difference between water masses, as described by Sverdrup et al. (1942, ch. 15), and water types. He states, "The chief distinction between water types and masses is that the former are under the direct influence of the physical processes taking place at the sea surface whereas the latter are not. One would therefore expect relatively large seasonal temperature and salinity changes in the surface water types. The position of their boundaries would also be subject to changing wind stresses, so that they would not always coincide with the corresponding water mass boundaries."

Arthur O. Oishi, Fishery Aid

Cruise 51

Herbert H. Shippen, Field Party Chief
Walter M. Matsumoto, Fishery Research Biologist
Fred Hertlein, Physical Science Aid

Charles H. Gilbert - William T. Tanaka, Master
Cruise 44

Kenneth D. Waldron, Field Party Chief
Herbert H. Shippen, Fishery Research Biologist
Fred Hertlein, Physical Science Aid

Cruise 45

Donald W. Strasburg, Field Party Chief
Eugene L. Nakamura, Fishery Research Biologist
Reginald M. Gooding, Fishery Research Biologist
Robert A. Stevenson, Jr., Fishery Research Biologist
Heeny S. H. Yuen, Fishery Research Biologist
Richard J. Hansen, Fishery Aid

Cruise 46

Eugene L. Nakamura, Field Party Chief (Sept. 15-16)
Donald W. Strasburg, Field Party Chief (Sept. 17-28)
Richard S. Shomura, Field Party Chief (Sept. 29-Oct. 18)
Robert A. Stevenson, Jr., Fishery Research Biologist
Daniel T. Yamashita, Fishery Research Biologist
Howard O. Yoshida, Fishery Research Biologist
Richard J. Hansen, Fishery Aid

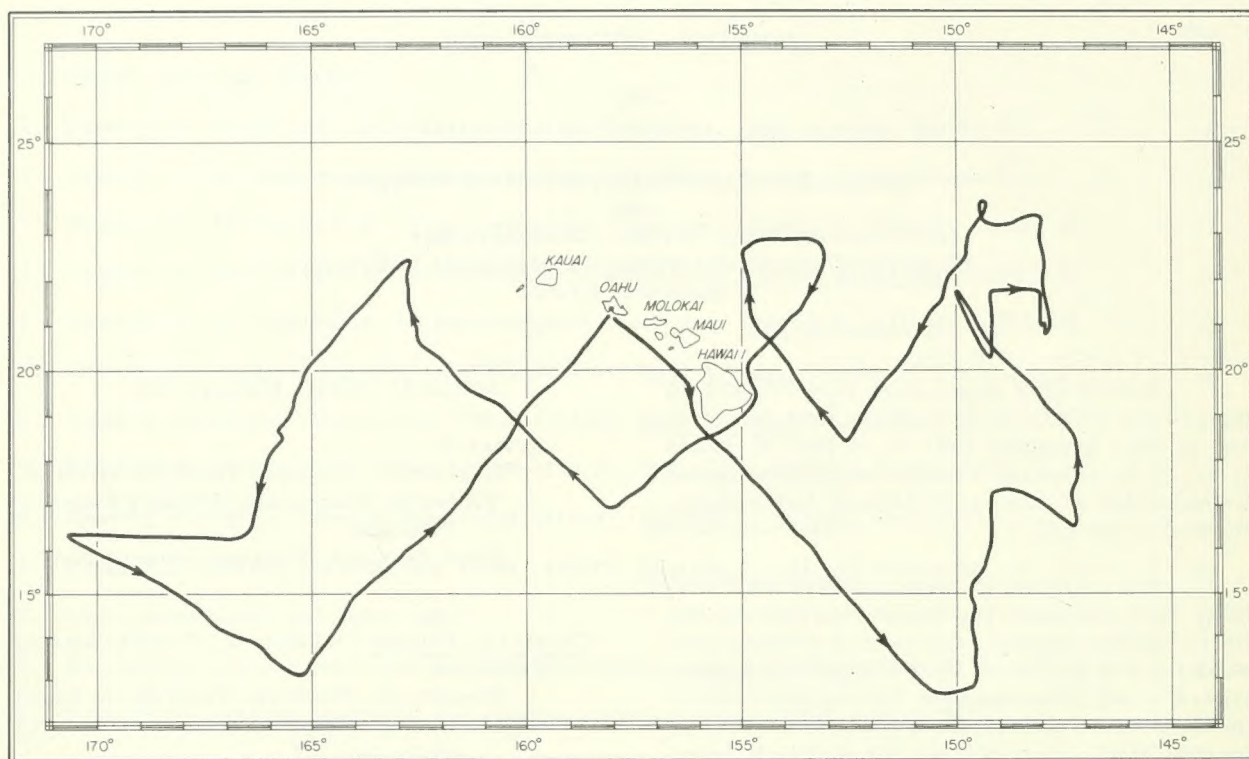


Figure 1a. --Vessel track of Hugh M. Smith cruise 50, Jan. 7-Feb. 10, 1959.

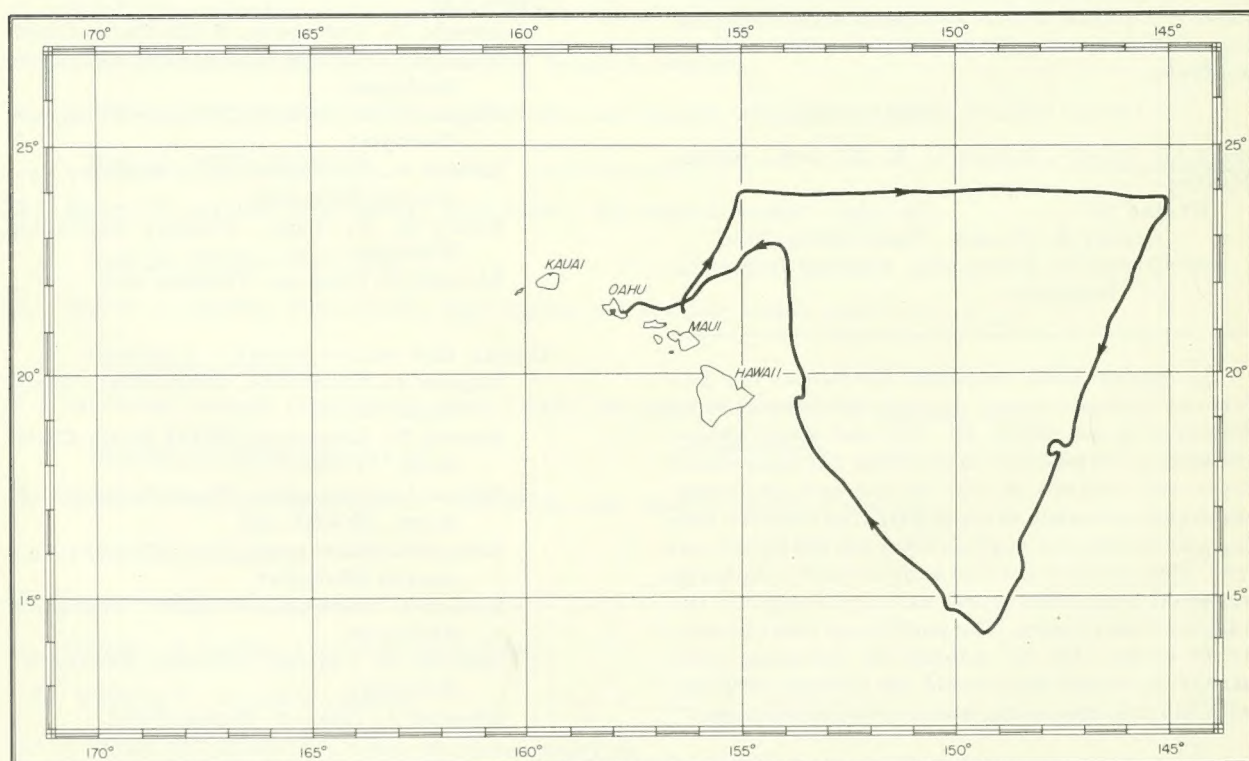


Figure 1b. --Vessel track of Hugh M. Smith cruise 51, Mar. 5-19, 1959.

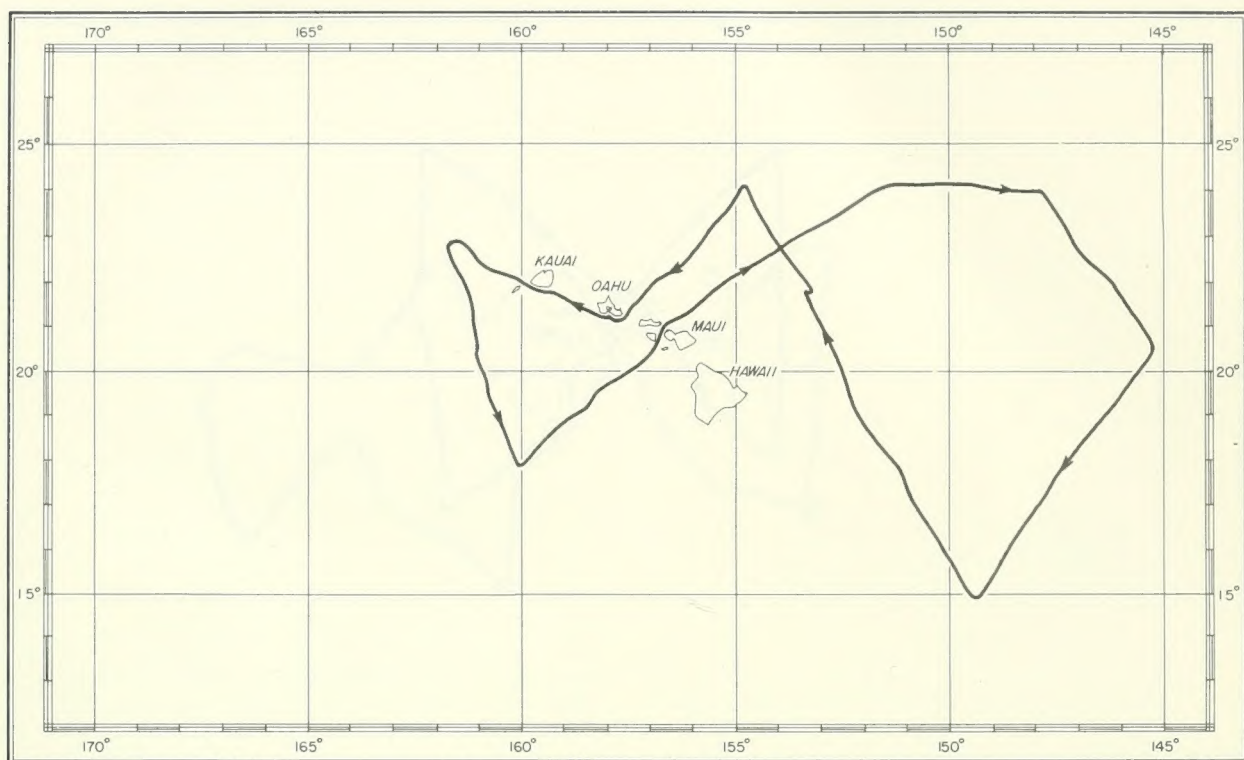


Figure 1c. --Vessel track of Hugh M. Smith cruise 51, Mar. 21-Apr. 6, 1959.

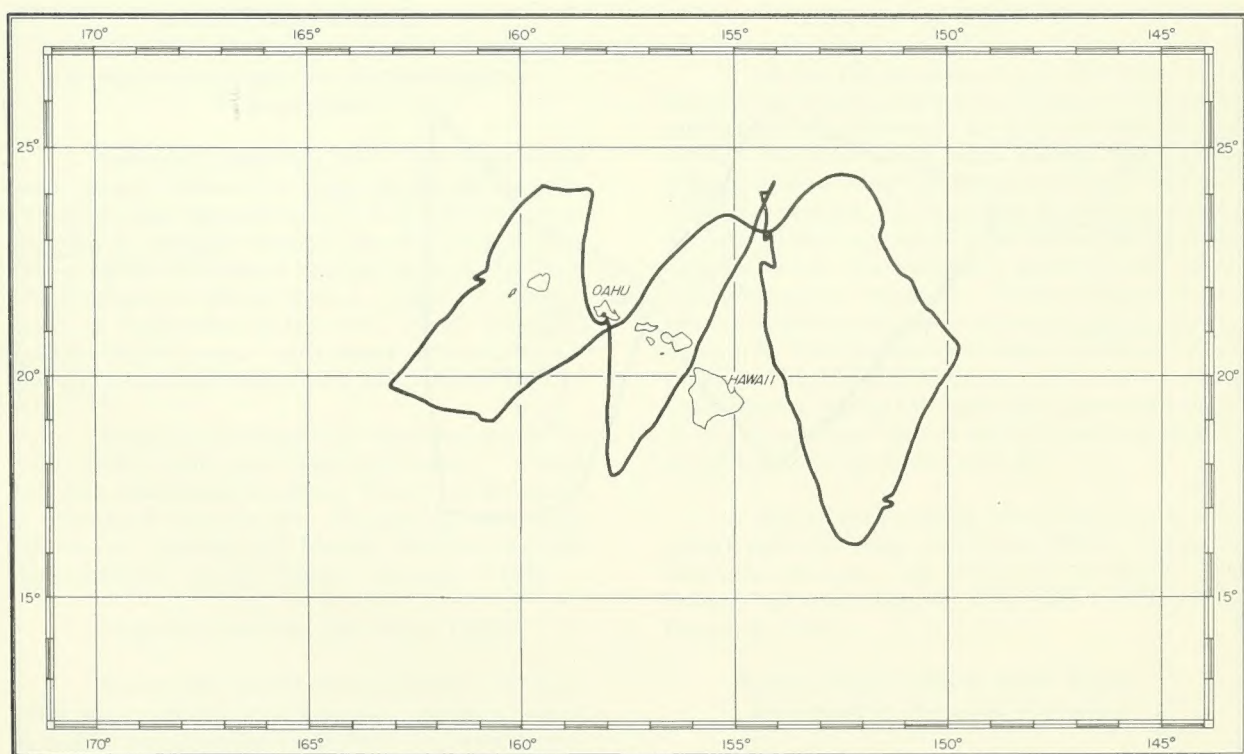


Figure 1d. --Vessel track of Charles H. Gilbert cruise 44, Apr. 30-May 18, 1959.

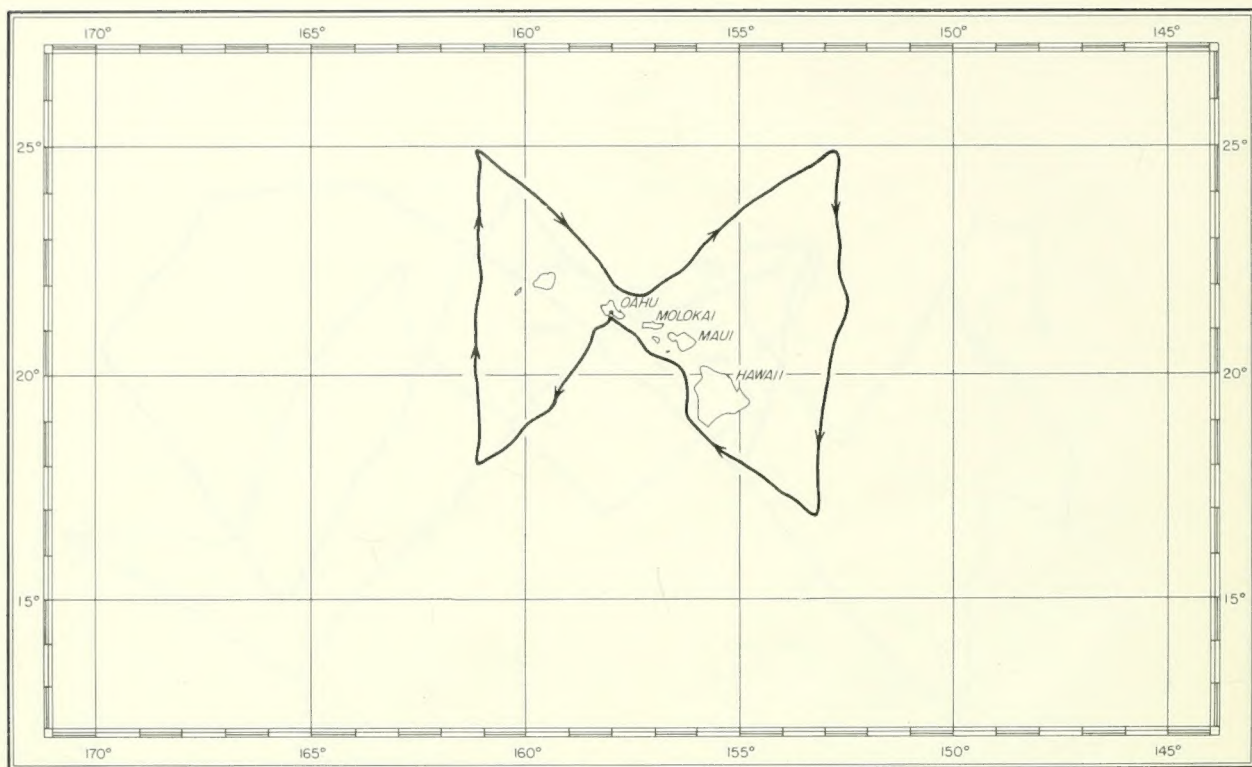


Figure 1e. --Vessel track of Charles H. Gilbert cruise 44, May 20-June 1, 1959.

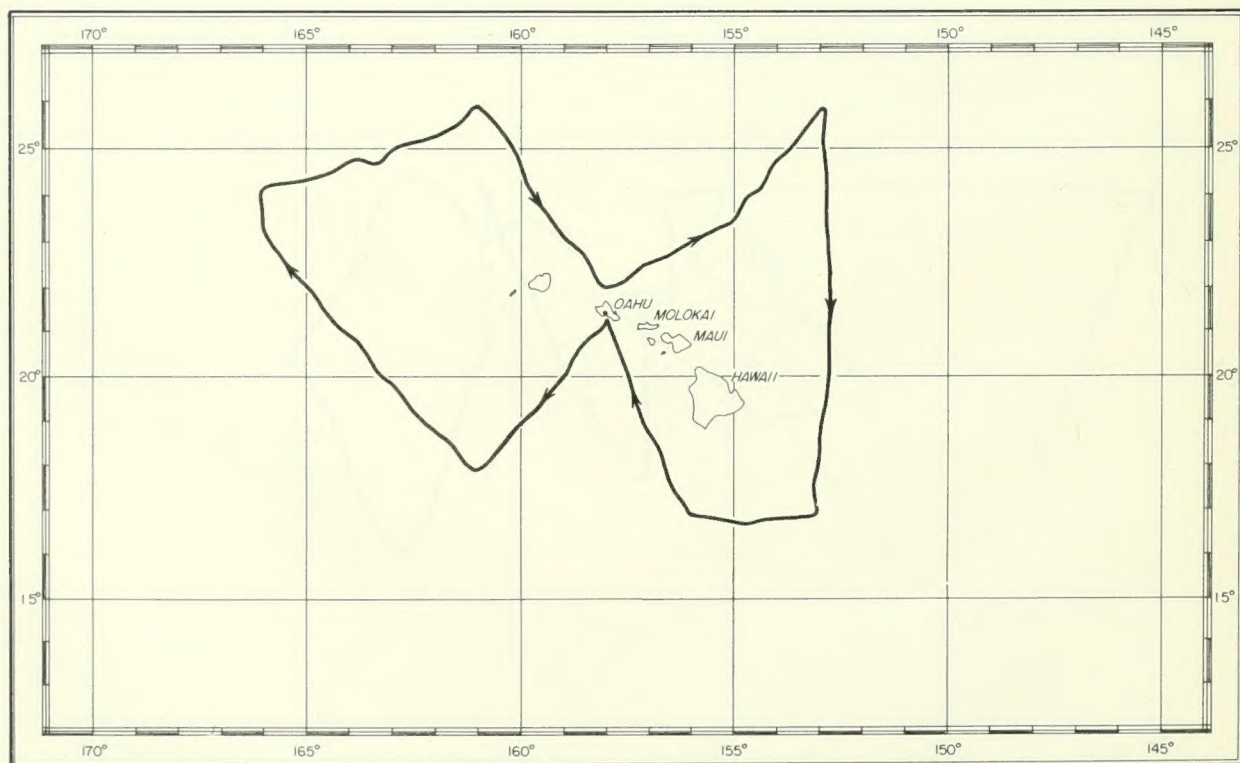


Figure 1f. --Vessel track of Charles H. Gilbert cruise 45, July 15-31, 1959.

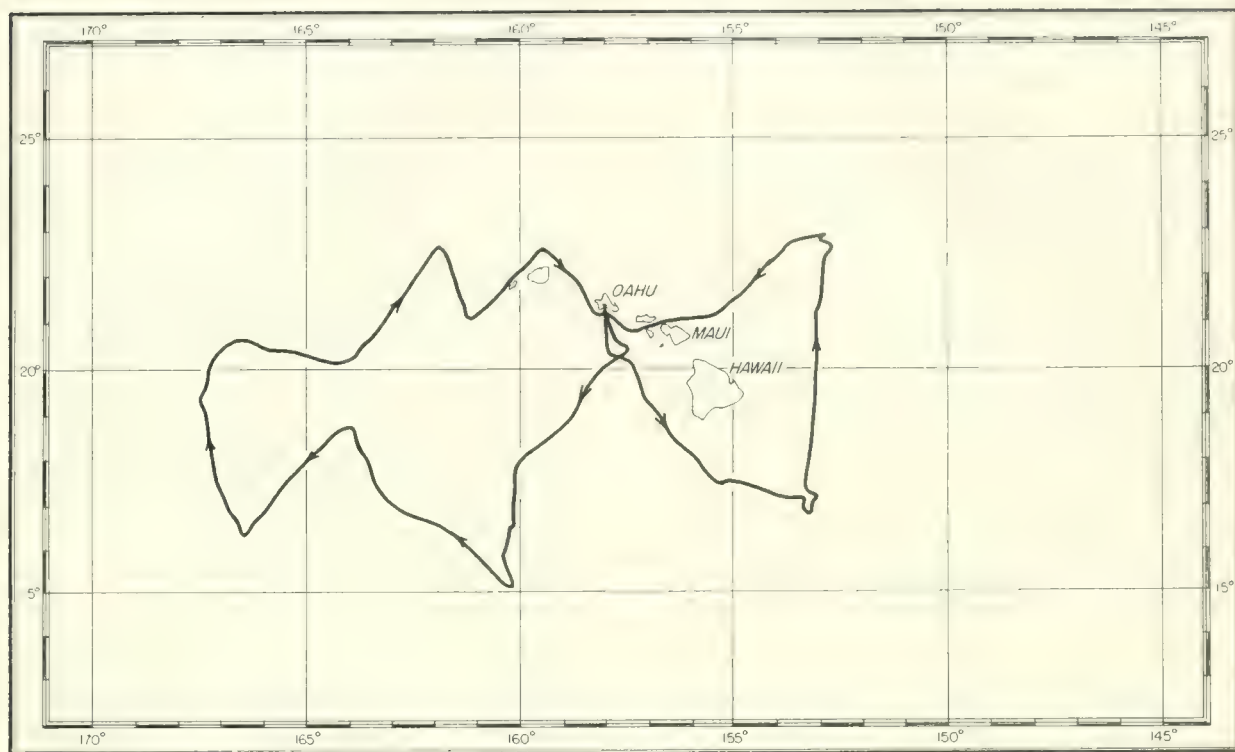


Figure 1g. --Vessel track of Charles H. Gilbert cruise 46, Sept. 29-Oct. 18, 1959.

FIELD PROCEDURES

Bathythermograph and Meteorological Observations

Bathythermograph (BT) lowerings were made every 3 hours on Hugh M. Smith cruises 50 and 51, and approximately every 30 miles on Charles H. Gilbert cruises 44, 45, and 46. The observations of weather and sea at each BT lowering appear in tables 2 to 6. The BT slides, prior to deposition in the U.S. Navy Hydrographic Office, were processed at the Laboratory by the method described by Callaway (1957).

Weather observations were recorded at 0000, 0600, 1200, and 1800 GCT daily. These data are presented in tables 7 to 11 (U.S. Weather Bureau Form 1210-F). Recording and coding follow the "Manual of Marine Meteorological Observations" (U.S. Weather Bureau, 1959).

Light Penetration and Water Color

Secchi disc observations and Forel water color estimations from Hugh M. Smith cruises 50 and 51 and Charles H. Gilbert cruises 45 and 46 are tabulated in table 12. These observations were taken at local apparent noon.

Zooplankton Collections

Of the 139 plankton hauls, 107 were 1/2-hour, 0- to 60-m. oblique hauls at approximately 2100 hours. In addition, 24 surface tows of 20-minute duration were taken during Charles H. Gilbert cruise 45 to collect larval tunas for serological studies. On Charles H. Gilbert cruise 46, five 1/2-hour surface hauls were taken across a temperature discontinuity encountered south of the island of Molokai. Three oblique 0- to 140-m. hauls were taken during Hugh M. Smith cruise 50 for comparison with plankton hauls taken at similar depths during previous cruises. Zooplankton sample weights are given in tables 13-17. The major group composition for selected samples is given in table 18.

All plankton hauls were made using a 1-meter net with body of No. 656 Nitex, aperture widths 0.66 mm., and with cod end of No. 308 Nitex, aperture widths 0.31 mm. (King and Demond, 1953).

Surface Fish School, Bird Flock, and Aquatic Mammal Sightings

A watch was maintained for surface fish schools, birds, and aquatic mammals during

the daylight hours. Summaries of these observations are presented in tables 19 to 23.

Longline Fishing

During four of the cruises, 25 longline stations were occupied. No longlining was undertaken during Charles H. Gilbert cruise 45. The longline gear used was a modification of the 11-hook basket described by Mann (1955), alternating floatline lengths of 10, 5, and 0 fathoms (in the last case the mainline was tied directly to the buoy) instead of the usual 10-fathom length. Positions and species composition of the catch are presented in table 24. Common and scientific names of fish caught are listed in table 27.

Surface Trolling

Two lines were trolled during daylight hours. A summary of surface trolling results for the five cruises is presented in table 25.

Tagging

A total of 236 skipjack were tagged with the all-plastic dart-type tags described by Yamashita and Waldron (1958). A summary of skipjack tagging results is presented in table 26.

LABORATORY PROCEDURES

Salinity Determination

The surface salinity samples obtained at each bathythermograph lowering were analyzed on shipboard using a modification of the Knudsen method (Van Landingham, 1957). A comparison of the shipboard and the subsequent laboratory determinations showed no significant difference between the two. The salinity data are incorporated in tables 2 to 6.

Phosphate Determination

Surface phosphate samples were collected on Hugh M. Smith cruises 50 and 51 and on Charles H. Gilbert cruises 44 and 46. These samples were analyzed by the hydrazine sulphate modification of Deniges' method (King, Austin, and Doty, 1957). The results are in tables 2, 3, 4, and 6.

Zooplankton

For all cruises, the methods for determining zooplankton abundance and composition described by King and Hida (1957) were followed with two exceptions:

1. All organisms above 5 cm. in

longest dimension, plus the nonfood^{2/} organisms 2-5 cm. in longest dimension, were removed from the sample and not included in the weight or group count data.

2. The weights of plankton expressed in g./1,000 m.³ (tables 13-17) were converted from volumetric displacement values for Hugh M. Smith cruises 50 and 51 and Charles H. Gilbert cruise 44. No significant difference was found between plankton volumes determined by volumetric displacement and those weighed directly after draining in a 56XXX grit gauze sock. This conclusion is based on a regression analysis in which 63 plankton samples ranging in displacement volume from less than 5 cc. to more than 200 cc. were drained, weighed, and volumetrically measured by water displacement. The regression equation of weight on volume was $Y = 0.9954X$. The deviation from a theoretical one-to-one basis was 0.0046 (E. C. Jones, personal communication).

Five stations from each cruise, except Hugh M. Smith cruise 50, were selected for group-count analysis (phylum to order) following the method described by Jones (McGary, Jones, and Austin, 1956). For Hugh M. Smith cruise 50, six stations were analyzed. The stations chosen were situated in one of three water types characterized by comparatively high salinity (> 34.9 ‰), intermediate salinity ($34.5 - 34.9$ ‰), or low salinity (< 34.5 ‰). The group composition and the percentage occurrence of each group are presented in table 18.

^{2/} Siphonophores, medusae, ctenophores, heteropods, and tunicates, as described by King and Hida (1957).

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Table 1.--Cruise areas and periods

| Vessel | Cruise | Period, 1959 | General Area |
|--------------------|--------|---------------------------------------|--|
| Hugh M. Smith | 50 | Jan. 9-Feb. 10 | 13°N. to 23°N.; 147°W. to 170°W. |
| Hugh M. Smith | 51 | March 3-March 19 March 21-April 6 | 14°N. to 24°N.; 146°W. to 157°W. 15°N. to 24°20'N.; 145°W. to 162°W. |
| Charles H. Gilbert | 44 | April 30-May 18 May 20-June 1 | 15°50'N. to 24°30'N.; 150°W. to 163°W. 17°N. to 25°N.; 155°W. to 161°W. |
| Charles H. Gilbert | 45 | July 6-July 14 July 15-July 31 | Local Hawaiian Waters 17°N. to 26°N.; 153°W. to 166°W. |
| Charles H. Gilbert | 46 | Sept. 15-Sept. 26 Sept. 29-Oct. 18 | Local Hawaiian Waters 15°N. to 23°N.; 153°W. to 167°30'W. |

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50
(Recording and coding of data follows U.S. Navy Hydrographic Office, 1956.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro- meter (mb.) | Wear- ther | Clouds | | Visi- bility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-------------------|------------|--------|-------|--------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 1 | 0310 | 1/10 | 20°17' | 156°02' | 77.0 | 27 | 3 | 78.0 | 72.0 | 1011 | 02 | 6 1/ | 6 | 9 | 0 | 04 | 2 | 34.72 |
| 2 | 0705 | 1/10 | 19°39' | 156°10' | 76.1 | 20 | 9 | 77.0 | 73.5 | 1013 | 02 | X 1/ | X | 9 | 0 | 0 | 0 | 34.74 |
| 3 | 1630 | 1/10 | 18°55' | 156°00' | 76.3 | 04 | 3 | 76.5 | 72.1 | 1012 | 02 | 6 | 6 | 9 | 0 | 10 | 1 | 34.57 |
| 4 | 1900 | 1/10 | 18°38' | 155°45' | 76.7 | 15 | 3 | 78.5 | 74.2 | 1014 | 02 | 4,8 | 6 | 9 | 0 | 10 | 1 | 34.61 |
| 5 | 2100 | 1/10 | 18°26' | 155°33' | 77.3 | 15 | 5 | 77.5 | 73.6 | 1014 | 02 | 4,8 | 6 | 9 | 0 | 10 | 1 | 34.53 |
| 6 | 0000 | 1/11 | 18°06' | 155°15' | 78.1 | 15 | 4 | 79.4 | 73.6 | 1012 | 02 | 4,8 | 3 | 9 | 0 | 15 | 1 | 34.44 |
| 7 | 0300 | 1/11 | 17°48' | 154°59' | 77.2 | 15 | 5 | 77.1 | 73.2 | 1012 | 01 | 4,8 | 2 | 9 | 1 | 15 | 1 | 34.72 |
| 8 | 0600 | 1/11 | 17°29' | 154°42' | 76.9 | 11 | 7 | 76.7 | 73.5 | 1013 | 02 | 4 | 2 | 9 | 1 | X | X | 34.72 |
| 9 | 0900 | 1/11 | 17°10' | 154°26' | 76.5 | 09 | 6 | 76.9 | 73.8 | 1014 | 02 | 4 | 2 | 9 | 1 | 15 | 1 | 34.74 |
| 10 | 1200 | 1/11 | 16°48' | 154°08' | 77.8 | 08 | 10 | 76.8 | 73.2 | 1012 | 02 | X | 1 | 9 | 2 | 15 | 1 | 34.36 |
| 11 | 1500 | 1/11 | 16°26' | 153°49' | 76.9 | 08 | 10 | 76.9 | 73.6 | 1012 | 02 | X | 2 | 9 | 2 | 15 | 1 | 34.52 |
| 12 | 1800 | 1/11 | 16°06' | 153°32' | 77.3 | 11 | 12 | 78.0 | 73.7 | 1013 | 15 | 4,6 | 6 | 9 | 2 | 11 | 2 | 34.64 |
| 13 | 2100 | 1/11 | 15°46' | 153°14' | 77.5 | 09 | 15 | 78.0 | 73.0 | 1012 | 02 | 4,6 | 6 | 9 | 2 | 11 | 2 | 34.64 |
| 14 | 0000 | 1/12 | 15°25' | 152°57' | 77.0 | 08 | 14 | 78.0 | 73.9 | 1010 | 03 | 4,6 | 7 | 9 | 2 | 11 | 2 | 34.72 |
| 15 | 0300 | 1/12 | 15°04' | 152°40' | 76.8 | 10 | 12 | 77.5 | 73.5 | 1010 | 02 | 4,6 | 7 | 9 | 2 | 11 | 2 | 34.72 |
| 16 | 0600 | 1/12 | 14°43' | 152°21' | 76.6 | 08 | 14 | 77.3 | 74.0 | 1012 | 02 | X | 7 | 9 | 2 | 11 | 2 | 34.74 |
| 17 | 0900 | 1/12 | 14°25' | 152°07' | 77.3 | 08 | 16 | 77.2 | 74.1 | 1012 | 01 | X | 5 | 9 | 3 | 11 | 4 | 34.49 |
| 18 | 1200 | 1/12 | 14°07' | 151°53' | 77.9 | 08 | 16 | 78.0 | 74.2 | 1010 | 02 | X | 2 | 9 | 3 | 11 | 4 | 34.16 |
| 19 | 1500 | 1/12 | 13°49' | 151°38' | 77.5 | 09 | 17 | 77.9 | 73.9 | 1009 | 02 | X | 2 | 9 | 3 | 11 | 4 | 34.23 |
| 20 | 1800 | 1/12 | 13°30' | 151°22' | 78.2 | 09 | 18 | 79.0 | 74.5 | 1010 | 02 | 4,6 | 5 | 9 | 3 | 11 | 4 | 34.05 |
| 21 | 2100 | 1/12 | 13°14' | 151°06' | 78.7 | 10 | 21 | 79.4 | 75.0 | 1009 | 02 | 4,6 | 3 | 9 | 4 | 10 | 4 | 34.08 |
| 22 | 0000 | 1/13 | 12°57' | 150°50' | 78.6 | 11 | 21 | 79.2 | 74.8 | 1006 | 02 | 4,6 | 3 | 9 | 4 | 11 | 4 | 33.97 |
| 23 | 0300 | 1/13 | 12°41' | 150°38' | 79.2 | 11 | 18 | 79.8 | 75.0 | 1008 | 01 | 4 | 2 | 9 | 4 | 11 | 4 | 33.92 |
| 24 | 0600 | 1/13 | 12°42' | 150°24' | 78.9 | 12 | 16 | 79.4 | 74.8 | 1008 | 03 | X | 4 | 9 | 4 | 11 | 4 | 33.97 |
| 25 | 1200 | 1/13 | 12°46' | 149°55' | 78.1 | 12 | 20 | 79.3 | 72.9 | 1008 | 02 | X | 6 | 9 | 4 | 11 | 4 | |
| 26 | 2145 | 1/13 | 12°51' | 149°39' | 78.4 | 10 | 18 | 80.0 | 73.5 | 1009 | 02 | 2 | 8 | 9 | 4 | 11 | 4 | 34.02 |
| 27 | 0300 | 1/14 | 13°04' | 149°33' | 78.1 | 11 | 18 | 78.7 | 73.2 | 1008 | 02 | 1 | 8 | 9 | 4 | 11 | 4 | 33.93 |
| 28 | 0600 | 1/14 | 13°30' | 149°35' | 78.1 | 11 | 14 | 78.5 | 73.5 | 1011 | 02 | X | 2 | 9 | 3 | 11 | 4 | 33.88 |
| 29 | 0900 | 1/14 | 13°51' | 149°34' | 78.4 | 10 | 13 | 78.5 | 74.3 | 1011 | 02 | X | 2 | 9 | 3 | 11 | 4 | 33.93 |
| 30 | 1200 | 1/14 | 14°18' | 149°34' | 78.0 | 10 | 13 | 78.0 | 74.4 | 1010 | 02 | X | 2 | 9 | 3 | 11 | 4 | 34.11 |
| 31 | 1500 | 1/14 | 14°45' | 149°35' | 77.8 | 07 | 13 | 77.9 | 74.6 | 1010 | 02 | X | 4 | 9 | 3 | 11 | 4 | 34.15 |
| 32 | 2225 | 1/14 | 15°04' | 149°41' | 78.0 | 08 | 12 | 78.1 | 76.0 | 1011 | 03 | 6 | 8 | 8 | 2 | 09 | 3 | 34.15 |
| 33 | 0305 | 1/15 | 15°17' | 149°31' | 77.8 | 07 | 10 | 78.5 | 75.6 | 1012 | 02 | 6 | 8 | 9 | 2 | 09 | 3 | 34.12 |
| 34 | 0600 | 1/15 | 15°41' | 149°17' | 77.8 | 10 | 14 | 78.1 | 75.5 | 1013 | 02 | X | 7 | 9 | 2 | 09 | 3 | 34.19 |
| 35 | 0900 | 1/15 | 16°02' | 149°08' | 77.9 | 12 | 14 | 77.9 | 75.1 | 1013 | 02 | X | 7 | 8 | 2 | 09 | 3 | 34.21 |
| 36 | 1200 | 1/15 | 16°30' | 149°09' | 77.3 | 13 | 14 | 77.7 | 75.0 | 1012 | 02 | X | 5 | 9 | 2 | 10 | 1 | 34.12 |
| 37 | 1500 | 1/15 | 16°57' | 149°11' | 77.1 | 14 | 13 | 77.6 | 75.0 | 1012 | 02 | X | X | 9 | 2 | 10 | 1 | 34.12 |
| 38 | 2205 | 1/15 | 17°17' | 149°18' | 77.5 | 19 | 08 | 79.0 | 76.0 | 1011 | 02 | 6 | 7 | 9 | 2 | 10 | 1 | 34.06 |
| 39 | 0600 | 1/16 | 17°15' | 148°38' | 77.5 | 21 | 10 | 78.1 | 75.1 | 1012 | 80 | X | 8 | 9 | 2 | 10 | 1 | 34.24 |
| 40 | 1200 | 1/16 | 16°56' | 147°51' | 77.0 | 03 | 14 | 75.0 | 71.5 | 1010 | 02 | X | 6 | 9 | 2 | 08 | 1 | 34.05 |

1/ X indicates that no observation was recorded.

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|-----------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|-----------|------|----------------|--|
| | | | | | | Dir. (°T) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T) | Amt. | | |
| 41 | 2200 | 1/16 | 16°37' | 147°12' | 77.0 | 13 | 21 | 76.3 | 74.4 | 1009 | 01 | 6,4 | 7 | 9 | 3 | 14 | 34.18 | 0.34 |
| 42 | 0300 | 1/17 | 16°52' | 147°12' | 76.9 | 12 | 12 | 76.2 | 72.1 | 1008 | 15 | 6,4 | 6 | 9 | 2 | 31 | 34.07 | |
| 43 | 0600 | 1/17 | 17°18' | 147°16' | 76.5 | 13 | 14 | 76.4 | 72.1 | 1010 | 01 | 8 | 2 | 9 | 2 | 31 | 34.14 | |
| 44 | 0900 | 1/17 | 17°36' | 147°12' | 76.9 | 13 | 14 | 76.9 | 72.0 | 1010 | 02 | 8 | 2 | 9 | 2 | 31 | 34.12 | |
| 45 | 1200 | 1/17 | 18°05' | 147°12' | 77.2 | 14 | 17 | 76.2 | 72.0 | 1008 | 02 | X | 2 | 9 | 3 | 12 | 34.10 | |
| 46 | 1500 | 1/17 | 18°33' | 147°12' | 76.9 | 15 | 16 | 76.1 | 71.2 | 1008 | 02 | X | 4 | 9 | 3 | 12 | 34.03 | |
| 47 | 1800 | 1/17 | 18°57' | 147°32' | 77.1 | 15 | 20 | 76.8 | 70.0 | 1010 | 02 | 6 | 7 | 9 | 3 | 31 | 34.04 | |
| 48 | 2100 | 1/17 | 19°18' | 147°52' | 76.4 | 16 | 19 | 77.9 | 70.4 | 1010 | 02 | 6,4 | 2 | 9 | 3 | 31 | 34.19 | |
| 49 | 0000 | 1/18 | 19°39' | 148°12' | 76.5 | 15 | 23 | 77.2 | 71.1 | 1008 | 02 | 4 | 5 | 9 | 3 | 15 | 34.13 | |
| 50 | 0300 | 1/18 | 19°59' | 148°35' | 76.4 | 16 | 22 | 77.0 | 71.8 | 1009 | 02 | 4,6 | 2 | 9 | 3 | 15 | 34.10 | |
| 51 | 0600 | 1/18 | 20°20' | 148°57' | 76.1 | 16 | 23 | 76.9 | 72.0 | 1010 | 02 | X | 4 | 9 | 3 | 15 | 34.25 | |
| 52 | 0900 | 1/18 | 20°38' | 149°10' | 76.3 | 15 | 24 | 76.7 | 72.5 | 1010 | 02 | 4 | 6 | 9 | 3 | 15 | 34.19 | |
| 53 | 1200 | 1/18 | 21°02' | 149°30' | 75.4 | 16 | 28 | 76.4 | 72.5 | 1009 | 02 | X | 4 | 9 | 5 | 15 | 34.46 | |
| 54 | 1500 | 1/18 | 21°26' | 149°49' | 76.1 | 16 | 24 | 76.5 | 72.9 | 1009 | 02 | X | 4 | 9 | 3 | 15 | 34.21 | |
| 55 | 1800 | 1/18 | 21°50' | 150°07' | 74.4 | 16 | 30 | 77.9 | 72.9 | 1008 | 14 | 6 | 6 | 9 | 5 | 15 | 34.89 | |
| 56 | 1800 | 1/19 | 20°21' | 149°10' | 76.4 | 16 | 24 | 76.2 | 73.2 | 1015 | 02 | 4,5 | 7 | 9 | 3 | 15 | 34.14 | |
| 57 | 2100 | 1/19 | 20°48' | 149°10' | 75.6 | 16 | 07 | 78.4 | 74.2 | 1024 | 02 | 4,5 | 7 | 9 | 2 | 15 | 34.45 | |
| 58 | 0000 | 1/20 | 21°16' | 149°12' | 76.0 | 11 | 18 | 75.9 | 74.0 | 1013 | 63 | 0 | 9 | 6 | 2 | 25 | 34.30 | |
| 59 | 0300 | 1/20 | 21°44' | 149°14' | 75.1 | 13 | 13 | 76.0 | 73.7 | 1015 | 02 | 4,6 | 7 | 9 | 2 | 25 | 34.61 | |
| 60 | 0600 | 1/20 | 21°48' | 148°50' | 74.8 | 15 | 18 | 75.4 | 72.6 | 1016 | 60 | X | 8 | 8 | 2 | 15 | 34.67 | |
| 61 | 0900 | 1/20 | 21°46' | 148°28' | 74.6 | 14 | 12 | 76.1 | 72.0 | 1017 | 00 | X | 8 | 8 | 2 | 14 | 34.71 | |
| 62 | 1200 | 1/20 | 21°46' | 148°04' | 74.4 | 16 | 10 | 74.9 | 71.7 | 1016 | 02 | X | 6 | 9 | 2 | 15 | 34.93 | |
| 63 | 1500 | 1/20 | 21°22' | 148°02' | 74.4 | 34 | 17 | 71.1 | 69.0 | 1017 | 63 | X | 8 | X | 2 | 15 | 34.65 | |
| 64 | 1800 | 1/20 | 21°00' | 148°00' | 74.3 | 05 | 14 | 72.6 | 67.9 | 1018 | 14 | 6 | 7 | 9 | 2 | 05 | 34.75 | |
| 65 | 2150 | 1/20 | 21°02' | 148°00' | 74.7 | 11 | 14 | 74.0 | 70.6 | 1016 | 01 | 4,8 | 2 | 9 | 2 | 06 | 34.78 | |
| 66 | 0310 | 1/21 | 20°53' | 147°58' | 75.5 | 15 | 11 | 76.0 | 71.0 | 1015 | 02 | 4,8 | 4 | 9 | 2 | 14 | 34.46 | |
| 67 | 0600 | 1/21 | 21°18' | 148°01' | 74.7 | 14 | 10 | 74.9 | 71.1 | 1016 | 03 | 4 | 6 | 9 | 2 | 14 | 34.85 | |
| 68 | 0900 | 1/21 | 21°41' | 147°59' | 74.5 | 15 | 07 | 74.6 | 71.0 | 1016 | 01 | 4 | 2 | 9 | 2 | 09 | 34.87 | |
| 69 | 1200 | 1/21 | 22°10' | 147°59' | 74.5 | 14 | 10 | 74.0 | 70.4 | 1014 | 02 | 8 | 4 | 9 | 2 | 09 | 34.88 | |
| 70 | 1500 | 1/21 | 22°40' | 147°59' | 74.0 | 15 | 10 | 73.9 | 70.1 | 1014 | 02 | 8 | 2 | 9 | 2 | 09 | 34.86 | |
| 71 | 2200 | 1/21 | 23°01' | 148°03' | 72.8 | 33 | 06 | 70.0 | 68.4 | 1015 | 25 | 6 | 8 | 8 | 2 | 09 | 34.86 | |
| 72 | 0300 | 1/22 | 23°10' | 147°58' | 72.9 | 06 | 06 | 71.1 | 68.4 | 1014 | 15 | 4,6 | 6 | 9 | 1 | 09 | 35.13 | |
| 73 | 0600 | 1/22 | 23°13' | 148°21' | 73.0 | 16 | 08 | 72.7 | 70.1 | 1015 | 02 | 6 | 7 | 9 | 1 | 09 | 35.02 | |
| 74 | 0900 | 1/22 | 23°11' | 148°44' | 72.5 | 19 | 07 | 71.5 | 69.5 | 1015 | 02 | 8,6 | 6 | 9 | 1 | 22 | 35.10 | |
| 75 | 1200 | 1/22 | 23°11' | 149°13' | 73.5 | 16 | 07 | 71.7 | 68.2 | 1014 | 14 | 6 | 8 | 9 | 1 | 26 | 35.01 | |
| 76 | 1500 | 1/22 | 23°17' | 149°16' | 72.5 | 08 | 05 | 72.0 | 69.7 | 1015 | 01 | 6 | 2 | 9 | 1 | 11 | 35.04 | |
| 77 | 2210 | 1/22 | 23°42' | 149°15' | 72.9 | 19 | 11 | 73.5 | 70.3 | 1016 | 02 | 4,6,8 | 5 | 9 | 1 | 16 | 34.97 | |
| 78 | 0300 | 1/23 | 23°39' | 149°16' | 73.1 | 28 | 08 | 74.0 | 70.5 | 1016 | 02 | 4,6,8 | 5 | 9 | 1 | 32 | 34.97 | |
| 79 | 0600 | 1/23 | 23°15' | 149°30' | 74.0 | 26 | 12 | 72.1 | 67.4 | 1018 | 14 | 6 | 8 | 8 | 1 | 32 | 35.02 | |
| 80 | 0900 | 1/23 | 22°53' | 149°42' | 73.8 | 28 | 10 | 73.1 | 70.2 | 1019 | 10 | 4,6,8 | 4 | 9 | 1 | 32 | 34.90 | |

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50 (con.)

| Ser. No. | Time Date, (GCT) 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|-----------------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 81 | 1200 | 22°29' | 149°55' | 74.6 | 33 | 14 | 73.0 | 70.0 | 1018 | 02 | 8 | 3 | 9 | 1 | 24 | 1 | 34.64 |
| 82 | 1500 | 22°04' | 150°08' | 74.2 | 34 | 14 | 73.0 | 67.7 | 1019 | 01 | 8 | 1 | 9 | 1 | 28 | 2 | 34.82 |
| 83 | 1800 | 21°38' | 150°24' | 75.1 | 03 | 13 | 73.9 | 67.7 | 1020 | 02 | 8 | 2 | 9 | 2 | 34 | 2 | 34.73 |
| 84 | 2100 | 21°13' | 150°39' | 74.5 | 04 | 14 | 76.0 | 69.0 | 1020 | 02 | 8 | 2 | 9 | 2 | 34 | 5 | 34.61 |
| 85 | 0000 | 20°50' | 150°55' | 74.9 | 04 | 18 | 74.6 | 67.9 | 1019 | 02 | 8 | 3 | 9 | 2 | 34 | 4 | 34.64 |
| 86 | 0300 | 20°23' | 151°14' | 75.0 | 03 | 20 | 74.7 | 69.7 | 1019 | 02 | 8 | 6 | 9 | 3 | 34 | 4 | 34.73 |
| 87 | 0600 | 19°56' | 151°31' | 76.0 | 04 | 26 | 73.9 | 67.9 | 1021 | 02 | 8 | 2 | 9 | 4 | 34 | 4 | 34.38 |
| 88 | 0900 | 19°40' | 151°44' | 76.0 | 05 | 22 | 74.2 | 68.8 | 1022 | 02 | 8 | 6 | 9 | 3 | 05 | 4 | 34.49 |
| 89 | 1200 | 19°16' | 152°00' | 76.3 | 06 | 22 | 74.5 | 69.5 | 1021 | 03 | 6,8 | 7 | 8 | 3 | 05 | 4 | 34.41 |
| 90 | 1500 | 18°50' | 152°15' | 77.0 | 04 | 24 | 74.4 | 69.6 | 1020 | 02 | 6,8 | 7 | 9 | 3 | 05 | 4 | 34.22 |
| 91 | 1800 | 18°26' | 152°32' | 76.7 | 05 | 22 | 74.8 | 70.8 | 1022 | 80 | 0 | 8 | 5 | 3 | 05 | 3 | 34.58 |
| 92 | 2100 | 18°46' | 152°51' | 77.1 | 08 | 22 | 75.1 | 72.0 | 1022 | 01 | 4,6 | 2 | 9 | 4 | 05 | 3 | 34.21 |
| 93 | 0000 | 19°08' | 153°09' | 76.9 | 08 | 22 | 77.0 | 72.0 | 1020 | 02 | 6,8 | 6 | 8 | 4 | 05 | 3 | 34.24 |
| 94 | 0300 | 19°31' | 153°27' | 76.7 | 06 | 22 | 75.8 | 71.1 | 1020 | 02 | 6,8 | 7 | 9 | 4 | 05 | 3 | 34.20 |
| 95 | 0600 | 19°54' | 153°45' | 76.3 | 07 | 20 | 75.0 | 70.0 | 1021 | 15 | 6,8 | 6 | 9 | 4 | 06 | 3 | 34.27 |
| 96 | 0850 | 20°11' | 153°56' | 75.0 | 07 | 20 | 74.6 | 70.0 | 1022 | 02 | 6 | 7 | 6 | 4 | 06 | 3 | 34.83 |
| 97 | 1200 | 20°32' | 154°12' | 75.3 | 09 | 18 | 74.1 | 70.0 | 1021 | 02 | 6 | 6 | 6 | 3 | 07 | 3 | 34.80 |
| 98 | 1500 | 20°53' | 154°29' | 74.0 | 09 | 19 | 74.0 | 69.0 | 1021 | 01 | 8 | 2 | 9 | 3 | 07 | 3 | 34.87 |
| 99 | 1800 | 21°14' | 154°45' | 74.1 | 09 | 19 | 76.0 | 71.0 | 1022 | 02 | 6,8 | 2 | 9 | 3 | 07 | 3 | 34.88 |
| 100 | 2100 | 21°44' | 154°47' | 74.1 | 09 | 22 | 74.9 | 70.1 | 1023 | 16 | 6,8 | 6 | 7 | 3 | 32 | 5 | 34.99 |
| 101 | 0000 | 22°12' | 154°48' | 74.1 | 10 | 17 | 74.2 | 70.4 | 1020 | 16 | 6 | 7 | 9 | 3 | 10 | 3 | 35.01 |
| 102 | 0300 | 22°40' | 154°48' | 73.5 | 10 | 12 | 73.5 | 70.5 | 1021 | 21 | 6 | 7 | 6 | 3 | 10 | 3 | 35.06 |
| 103 | 0600 | 22°52' | 154°32' | 73.8 | 11 | 12 | 73.5 | 70.4 | 1022 | 14 | 6 | 7 | 9 | 3 | 09 | 3 | 35.05 |
| 104 | 0900 | 22°51' | 154°07' | 73.6 | 12 | 14 | 73.6 | 70.9 | 1023 | 02 | 6 | 5 | 9 | 3 | 11 | 3 | 35.07 |
| 105 | 1200 | 22°50' | 153°40' | 73.0 | 11 | 14 | 73.1 | 70.0 | 1022 | 01 | 6 | 3 | 9 | 3 | 09 | 3 | 35.07 |
| 106 | 1500 | 22°48' | 153°14' | 73.0 | 19 | 10 | 71.4 | 68.0 | 1022 | 20 | 6 | 6 | 8 | 3 | 09 | 3 | 35.16 |
| 107 | 2200 | 22°46' | 153°08' | 73.2 | 11 | 14 | 72.6 | 69.0 | 1022 | 02 | 8 | 2 | 9 | 2 | 09 | 3 | 35.09 |
| 108 | 0300 | 22°29' | 153°06' | 73.6 | 12 | 17 | 74.5 | 69.5 | 1019 | 02 | 4,8 | 2 | 9 | 3 | 12 | 4 | 35.09 |
| 109 | 0600 | 22°00' | 153°12' | 74.0 | 11 | 15 | 73.2 | 68.4 | 1020 | 02 | 8 | 2 | 9 | 3 | 12 | 4 | 34.98 |
| 110 | 0900 | 21°46' | 153°19' | 74.0 | 12 | 13 | 74.1 | 69.2 | 1019 | 02 | 6 | 5 | 9 | 3 | 12 | 4 | 34.98 |
| 111 | 1200 | 21°27' | 153°37' | 74.9 | 10 | 19 | 74.9 | 68.7 | 1018 | 02 | 4,6,8 | 4 | 9 | 4 | 12 | 4 | 34.87 |
| 112 | 1500 | 21°08' | 153°56' | 75.0 | 11 | 20 | 75.0 | 69.0 | 1017 | 02 | 6 | 7 | 9 | 3 | 12 | 4 | 34.80 |
| 113 | 1800 | 20°48' | 154°15' | 74.1 | 13 | 17 | 76.5 | 69.4 | 1019 | 02 | 4,8 | 2 | 9 | 3 | 12 | 4 | 34.84 |
| 114 | 2100 | 20°28' | 154°34' | 75.4 | 12 | 20 | 75.8 | 69.4 | 1018 | 02 | 4 | 1 | 9 | 4 | 12 | 4 | 34.67 |
| 115 | 0000 | 20°05' | 154°51' | 76.1 | 13 | 14 | 76.8 | 70.1 | 1015 | 03 | 4,6 | 4 | 9 | 3 | 12 | 4 | 34.50 |
| 116 | 0000 | 18°39' | 155°49' | 77.5 | 07 | 18 | 77.0 | 71.5 | 1015 | 02 | 8 | 1 | 9 | 3 | 12 | 4 | 34.27 |
| 117 | 0300 | 18°22' | 156°12' | 77.1 | 09 | 15 | 76.9 | 71.4 | 1015 | 02 | 8 | 1 | 9 | 3 | 10 | 4 | 34.43 |
| 118 | 0600 | 18°03' | 156°35' | 77.3 | 10 | 18 | 76.7 | 71.6 | 1017 | 02 | 8 | 1 | 9 | 3 | 10 | 4 | 34.33 |
| 119 | 0900 | 17°48' | 156°50' | 77.3 | 09 | 19 | 76.7 | 71.9 | 1016 | 02 | 8 | 2 | 9 | 3 | 10 | 4 | 34.38 |
| 120 | 1200 | 17°31' | 157°14' | 77.5 | 09 | 19 | 76.7 | 71.0 | 1016 | 02 | 8 | 3 | 9 | 3 | 09 | 4 | 34.35 |

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at. / l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|---|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | | Dir. (°T.) | Amt. | | |
| 121 | 1500 | 1/29 | 17°14' | 157°37' | 77.5 | 07 | 18 | 76.6 | 71.9 | 1015 | 03 | 8,6 | 6 | 9 | 3 | 07 | 4 | 34.27 | |
| 122 | 1800 | 1/29 | 16°54' | 158°02' | 78.0 | 08 | 21 | 77.2 | 72.0 | 1017 | 02 | 8 | 5 | 9 | 3 | 08 | 4 | 34.20 | |
| 123 | 2100 | 1/29 | 17°12' | 158°19' | 78.1 | 09 | 18 | 77.9 | 72.1 | 1017 | 02 | 8 | 5 | 9 | 3 | 08 | 4 | 34.19 | |
| 124 | 0000 | 1/30 | 17°31' | 158°42' | 77.6 | 09 | 18 | 77.2 | 71.3 | 1014 | 02 | 8 | 4 | 9 | 3 | 08 | 4 | 34.18 | |
| 125 | 0300 | 1/30 | 17°51' | 159°06' | 77.7 | 08 | 16 | 78.0 | 72.5 | 1014 | 02 | 8 | 2 | 9 | 3 | 08 | 4 | 34.25 | |
| 126 | 0600 | 1/30 | 18°10' | 159°29' | 77.4 | 08 | 14 | 76.9 | 71.6 | 1016 | 02 | 8 | 3 | 9 | 3 | 08 | 4 | 34.23 | |
| 127 | 0900 | 1/30 | 18°26' | 159°45' | 75.6 | 06 | 09 | 75.8 | 70.3 | 1018 | 02 | 8 | 3 | 9 | 2 | 08 | 4 | 34.82 | |
| 128 | 1200 | 1/30 | 18°44' | 160°07' | 75.6 | 06 | 10 | 75.0 | 70.5 | 1017 | 02 | 8 | 1 | 9 | 2 | 11 | 4 | 34.94 | |
| 129 | 1500 | 1/30 | 19°03' | 160°28' | 75.6 | 05 | 07 | 74.9 | 70.1 | 1016 | 02 | X | 0 | 9 | 2 | 11 | 4 | 34.87 | |
| 130 | 1800 | 1/30 | 19°19' | 160°49' | 75.5 | 05 | 06 | 74.9 | 69.5 | 1018 | 02 | 4,8 | 3 | 9 | 1 | 11 | 1 | 34.94 | |
| 131 | 2100 | 1/30 | 19°35' | 161°14' | 75.6 | 10 | 04 | 76.5 | 70.3 | 1019 | 01 | 8 | 1 | 9 | 1 | 11 | 2 | 34.05 | |
| 132 | 0000 | 1/31 | 19°50' | 161°35' | 77.4 | 03 | 06 | 76.5 | 69.4 | 1016 | 02 | 8 | 1 | 9 | 1 | 11 | 2 | 34.98 | |
| 133 | 0300 | 1/31 | 20°07' | 161°53' | 77.7 | 00 | 06 | 75.8 | 68.2 | 1016 | 02 | 8 | 1 | 9 | 1 | 11 | 2 | 34.92 | |
| 134 | 0600 | 1/31 | 20°26' | 162°12' | 76.1 | 01 | 12 | 76.7 | 69.0 | 1018 | 02 | 8 | 3 | 9 | 1 | 11 | 2 | 34.92 | |
| 135 | 0900 | 1/31 | 20°42' | 162°29' | 76.1 | 00 | 10 | 75.0 | 68.5 | 1018 | 02 | X | 2 | 9 | 2 | 11 | 2 | 34.95 | |
| 136 | 1200 | 1/31 | 21°01' | 162°32' | 75.4 | 03 | 22 | 73.0 | 68.8 | 1018 | 03 | X | 6 | 9 | 3 | 11 | 2 | 34.89 | |
| 137 | 1500 | 1/31 | 21°20' | 162°34' | 75.4 | 02 | 22 | 71.9 | 65.9 | 1018 | 02 | X | 6 | 9 | 3 | 02 | 4 | 34.92 | |
| 138 | 1900 | 1/31 | 21°42' | 162°38' | 74.8 | 04 | 22 | 70.0 | 60.7 | 1022 | 02 | 6,8 | 6 | 9 | 4 | 00 | 3 | 34.98 | |
| 139 | 0000 | 2/1 | 22°05' | 162°43' | 75.0 | 05 | 23 | 70.0 | 62.5 | 1020 | 02 | 6 | 7 | 9 | 4 | 03 | 3 | 34.91 | 0.29 |
| 140 | 0600 | 2/1 | 22°35' | 162°45' | 73.8 | 06 | 27 | 69.0 | 60.8 | 1023 | 02 | X | 7 | 9 | 4 | 03 | 3 | 35.06 | |
| 141 | 0900 | 2/1 | 22°16' | 163°04' | 74.4 | 07 | 20 | 68.9 | 62.3 | 1024 | 66 | X | 8 | X | 4 | 03 | 3 | 34.99 | |
| 142 | 1200 | 2/1 | 21°55' | 163°23' | 74.9 | 07 | 26 | 69.1 | 64.2 | 1023 | 01 | X | 2 | 7 | 4 | 07 | 4 | 35.00 | |
| 143 | 1500 | 2/1 | 21°34' | 163°43' | 74.0 | 06 | 25 | 70.3 | 64.0 | 1021 | 02 | 6,8 | 4 | 9 | 4 | 06 | 3 | 35.03 | |
| 144 | 1800 | 2/1 | 21°14' | 164°02' | 74.5 | 06 | 25 | 68.5 | 64.9 | 1022 | 15 | 6,8 | 6 | 9 | 4 | 07 | 3 | 34.99 | |
| 145 | 2100 | 2/1 | 20°56' | 164°21' | 75.0 | 08 | 26 | 75.9 | 65.1 | 1023 | 01 | 4,8 | 4 | 9 | 4 | 07 | 3 | 34.92 | |
| 146 | 0000 | 2/2 | 20°37' | 164°40' | 75.4 | 08 | 20 | 72.1 | 66.8 | 1020 | 02 | 6,8 | 4 | 9 | 4 | 07 | 3 | 34.93 | |
| 147 | 0300 | 2/2 | 20°16' | 164°59' | 74.9 | 08 | 22 | 73.0 | 66.7 | 1019 | 02 | 6,8 | 3 | 9 | 4 | 08 | 3 | 34.98 | |
| 148 | 0600 | 2/2 | 19°54' | 165°19' | 75.5 | 09 | 23 | 73.1 | 67.9 | 1019 | 02 | 6 | 3 | 9 | 3 | 08 | 3 | 34.85 | |
| 149 | 0900 | 2/2 | 19°32' | 165°21' | 75.7 | 09 | 18 | 74.2 | 69.0 | 1020 | 02 | X | 3 | 9 | 3 | 08 | 3 | 34.84 | |
| 150 | 1200 | 2/2 | 19°03' | 165°26' | 75.0 | 08 | 16 | 74.5 | 68.0 | 1019 | 02 | X | 2 | 9 | 3 | 08 | 3 | 34.93 | |
| 151 | 1450 | 2/2 | 18°35' | 165°32' | 76.4 | 06 | 20 | 75.1 | 67.5 | 1017 | 03 | X | 7 | 9 | 3 | 08 | 3 | 34.75 | |
| 152 | 2255 | 2/2 | 18°46' | 165°49' | 75.4 | 06 | 18 | 74.7 | 68.7 | 1018 | 02 | 6,8 | 6 | 9 | 3 | 08 | 3 | 34.93 | |
| 153 | 0600 | 2/3 | 18°14' | 166°00' | 74.9 | 07 | 16 | 75.2 | 66.0 | 1017 | 02 | 6 | 7 | 9 | 3 | 08 | 3 | 34.98 | |
| 154 | 0900 | 2/3 | 17°54' | 166°03' | 76.8 | 08 | 23 | 74.5 | 69.8 | 1017 | 02 | X | 7 | 9 | 3 | 08 | 3 | 34.56 | |
| 155 | 1200 | 2/3 | 17°28' | 166°08' | 77.3 | 09 | 23 | 75.4 | 66.9 | 1016 | 02 | X | 8 | X | 3 | 08 | 3 | 34.59 | |
| 156 | 1500 | 2/3 | 17°02' | 166°14' | 77.5 | 07 | 20 | 76.0 | 67.6 | 1015 | 02 | X | 8 | 7 | 3 | 08 | 3 | 34.54 | |
| 157 | 1800 | 2/3 | 16°35' | 166°20' | 77.6 | 07 | 20 | 76.5 | 66.8 | 1016 | 02 | 6,8 | 7 | 8 | 3 | 08 | 3 | 34.42 | |
| 158 | 2100 | 2/3 | 16°24' | 166°41' | 77.9 | 07 | 19 | 77.9 | 68.0 | 1017 | 02 | 6 | 6 | 9 | 3 | 07 | 3 | 34.39 | |
| 159 | 0000 | 2/4 | 16°25' | 167°11' | 77.6 | 08 | 22 | 77.4 | 67.5 | 1015 | 01 | 6,8 | 2 | 9 | 3 | 07 | 3 | 34.27 | |
| 160 | 0300 | 2/4 | 16°25' | 167°42' | 77.4 | 08 | 17 | 77.0 | 69.5 | 1014 | 02 | 6,8 | 4 | 9 | 3 | 07 | 3 | 34.28 | |

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 161 | 0600 | 2/4 | 16°24' | 168°14' | 77.5 | 08 | 21 | 76.8 | 69.0 | 1014 | 02 | 6,8 | 2 | 9 | 3 | 07 | 3 | 34.33 |
| 162 | 0900 | 2/4 | 16°25' | 168°37' | 76.0 | 08 | 14 | 75.7 | 70.8 | 1015 | 02 | X | 3 | 9 | 3 | 07 | 3 | 34.83 |
| 163 | 1200 | 2/4 | 16°25' | 169°08' | 76.2 | 08 | 22 | 76.0 | 69.0 | 1014 | 02 | X | 2 | 9 | 4 | 07 | 4 | 34.83 |
| 164 | 1500 | 2/4 | 16°25' | 169°39' | 76.4 | 08 | 26 | 74.8 | 69.7 | 1012 | 02 | 6,8 | 2 | 9 | 4 | 07 | 4 | 34.92 |
| 165 | 2015 | 2/4 | 16°24' | 170°02' | 76.4 | 08 | 20 | 75.7 | 69.5 | 1014 | 02 | 6,8 | 2 | 9 | 4 | 07 | 4 | 34.85 |
| 166 | 0000 | 2/5 | 16°22' | 170°41' | 76.8 | 07 | 23 | 76.1 | 69.3 | 1012 | 02 | 6,8 | 4 | 9 | 4 | 06 | 4 | 34.85 |
| 167 | 0300 | 2/5 | 16°10' | 170°22' | 76.9 | 06 | 19 | 75.9 | 69.2 | 1012 | 02 | 4,6,8 | 5 | 9 | 4 | 06 | 4 | 34.71 |
| 168 | 0600 | 2/5 | 15°57' | 170°01' | 76.6 | 07 | 16 | 75.0 | 69.0 | 1011 | 02 | 6,8 | 4 | 9 | 4 | 06 | 4 | 34.83 |
| 169 | 0900 | 2/5 | 15°46' | 169°44' | 77.0 | 08 | 16 | 74.8 | 69.5 | 1012 | 02 | X | 4 | 9 | 4 | 06 | 4 | 34.52 |
| 170 | 1200 | 2/5 | 15°32' | 169°23' | 77.1 | 08 | 16 | 76.0 | 69.6 | 1011 | 02 | X | 3 | 9 | 4 | 06 | 4 | 34.40 |
| 171 | 1500 | 2/5 | 15°17' | 169°03' | 77.5 | 08 | 16 | 76.3 | 69.2 | 1009 | 02 | X | 2 | 9 | 4 | 06 | 4 | 34.37 |
| 172 | 1800 | 2/5 | 15°02' | 168°42' | 77.4 | 09 | 14 | 76.5 | 69.2 | 1010 | 14 | 4,6,8 | 3 | 9 | 3 | 08 | 3 | 34.28 |
| 173 | 2100 | 2/5 | 14°52' | 168°23' | 77.5 | 10 | 20 | 75.1 | 70.6 | 1012 | 16 | 6,8 | 6 | 9 | 3 | 08 | 3 | 34.27 |
| 174 | 0000 | 2/6 | 14°40' | 168°01' | 77.9 | 08 | 19 | 76.5 | 71.2 | 1010 | 02 | 6,8 | 4 | 9 | 3 | 08 | 3 | 34.33 |
| 175 | 0300 | 2/6 | 14°29' | 167°38' | 78.0 | 08 | 22 | 76.8 | 71.0 | 1008 | 02 | 6,8 | 5 | 9 | 3 | 08 | 3 | 34.41 |
| 176 | 0600 | 2/6 | 14°18' | 167°16' | 78.0 | 07 | 20 | 77.0 | 71.9 | 1009 | 02 | 6,8 | 4 | 9 | 3 | 08 | 3 | 34.34 |
| 177 | 0900 | 2/6 | 14°10' | 166°57' | 78.1 | 07 | 20 | 77.4 | 72.0 | 1009 | 02 | X | 4 | 9 | 3 | 08 | 3 | 34.27 |
| 178 | 1200 | 2/6 | 13°59' | 166°35' | 78.0 | 07 | 20 | 76.0 | 72.8 | 1010 | 14 | X | 6 | 7 | 4 | 08 | 4 | 34.22 |
| 179 | 1500 | 2/6 | 13°48' | 166°13' | 78.0 | 07 | 22 | 76.7 | 72.9 | 1008 | 02 | X | 4 | 9 | 3 | 08 | 3 | 34.24 |
| 180 | 1800 | 2/6 | 13°37' | 165°52' | 78.2 | 06 | 20 | 77.5 | 72.8 | 1010 | 15 | 4,6 | 7 | 9 | 3 | 08 | 3 | 34.17 |
| 181 | 2100 | 2/6 | 13°20' | 165°37' | 78.5 | 06 | 22 | 78.0 | 74.0 | 1010 | 02 | 6,8 | 7 | 8 | 3 | 08 | 3 | 34.10 |
| 182 | 0000 | 2/7 | 13°05' | 165°21' | 78.6 | 06 | 20 | 78.6 | 74.0 | 1008 | 02 | 6,8 | 8 | 8 | 3 | 08 | 3 | 34.32 |
| 183 | 0300 | 2/7 | 13°19' | 165°10' | 78.6 | 06 | 22 | 78.0 | 73.9 | 1007 | 15 | 6,8 | 8 | 8 | 3 | 08 | 3 | 34.28 |
| 184 | 0600 | 2/7 | 13°33' | 164°58' | 78.5 | 05 | 22 | 77.1 | 73.8 | 1008 | 14 | X | 8 | 8 | 3 | 06 | 3 | 34.25 |
| 185 | 1000 | 2/7 | 13°51' | 164°45' | 78.8 | 06 | 20 | 78.0 | 74.2 | 1010 | 02 | X | 8 | 8 | 3 | 06 | 3 | 34.22 |
| 186 | 1400 | 2/7 | 14°10' | 164°31' | 78.2 | 06 | 23 | 78.3 | 73.6 | 1008 | 02 | X | X | X | 3 | 06 | 3 | 34.21 |
| 187 | 1800 | 2/7 | 14°29' | 164°16' | 78.1 | 06 | 21 | 77.5 | 73.5 | 1009 | 02 | 6,8 | 7 | 8 | 3 | 06 | 3 | 34.19 |
| 188 | 2200 | 2/7 | 14°50' | 164°02' | 77.8 | 06 | 21 | 78.0 | 73.7 | 1010 | 02 | 6,8 | 7 | 8 | 3 | 06 | 3 | 34.27 |
| 189 | 0200 | 2/8 | 15°10' | 163°42' | 77.4 | 06 | 20 | 77.0 | 73.8 | 1008 | 02 | 6,8 | 7 | 8 | 3 | 06 | 3 | 34.41 |
| 190 | 0600 | 2/8 | 15°29' | 163°20' | 76.9 | 06 | 22 | 76.0 | 73.2 | 1009 | 14 | 6,8 | 7 | 9 | 3 | 06 | 3 | 34.73 |
| 191 | 1000 | 2/8 | 15°46' | 162°59' | 76.9 | 06 | 16 | 76.2 | 73.9 | 1010 | 14 | X | 8 | 7 | 3 | 06 | 3 | 34.72 |
| 192 | 1400 | 2/8 | 16°08' | 162°33' | 76.4 | 06 | 14 | 76.5 | 74.0 | 1008 | 02 | X | 8 | 8 | 2 | 06 | 3 | 34.75 |
| 193 | 1800 | 2/8 | 16°31' | 162°09' | 76.3 | 06 | 13 | 76.0 | 72.9 | 1010 | 14 | 6 | 8 | 8 | 2 | 06 | 3 | 34.45 |
| 194 | 2100 | 2/8 | 16°51' | 161°50' | 77.2 | 08 | 11 | 77.5 | 74.8 | 1011 | 15 | 6,8 | 8 | 8 | 2 | 07 | 3 | 34.33 |
| 195 | 0000 | 2/9 | 17°10' | 161°34' | 76.5 | 09 | 09 | 76.8 | 74.5 | 1010 | 14 | 0 | 8 | 5 | 2 | 09 | 3 | 34.33 |
| 196 | 0325 | 2/9 | 17°31' | 161°20' | 76.6 | 10 | 16 | 77.5 | 74.3 | 1010 | 60 | 0 | 8 | 5 | 2 | 09 | 3 | 34.29 |
| 197 | 0600 | 2/9 | 17°49' | 161°04' | 76.7 | 11 | 17 | 75.5 | 71.9 | 1011 | 14 | 0 | 7 | 5 | 2 | 09 | 3 | 34.28 |
| 198 | 0900 | 2/9 | 18°06' | 160°48' | 76.5 | 12 | 20 | 77.5 | 73.9 | 1010 | 02 | X | 8 | 7 | 2 | 09 | 3 | 34.35 |
| 199 | 1200 | 2/9 | 18°29' | 160°30' | 75.0 | 13 | 18 | 77.0 | 73.9 | 1011 | 14 | X | 8 | 7 | 3 | 09 | 3 | 34.75 |
| 200 | 1500 | 2/9 | 18°52' | 160°13' | 75.2 | 13 | 11 | 76.4 | 73.7 | 1011 | 02 | X | 8 | X | 2 | 09 | 3 | 34.77 |

Table 2.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 50 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) | |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|------|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | | |
| 201 | 2300 | 2/9 | 19°10' | 160°05' | 75.2 | 10 | 14 | 76.5 | 73.5 | 1012 | 20 | 0,6 | 8 | 7 | 2 | 10 | 1 | 34.84 | 0.36 |
| 202 | 0600 | 2/10 | 19°40' | 159°31' | 76.2 | 11 | 10 | 74.6 | 71.0 | 1014 | 61 | X | 8 | 5 | 2 | 10 | 1 | 34.34 | |
| 203 | 0900 | 2/10 | 19°58' | 159°13' | 76.0 | 14 | 08 | 74.4 | 71.3 | 1014 | 20 | X | 8 | X | 2 | 10 | 1 | 34.53 | |
| 204 | 1200 | 2/10 | 20°20' | 158°53' | 76.1 | 14 | 08 | 74.1 | 71.1 | 1013 | 60 | X | 8 | X | 2 | 10 | 1 | 34.32 | |
| 205 | 1500 | 2/10 | 20°43' | 158°33' | 75.4 | 17 | 02 | 74.0 | 70.9 | 1012 | 60 | X | 8 | X | 2 | X | 1 | 34.46 | |

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51
(Recording and coding of data follows U.S. Navy Hydrographic Office, 1956.)

| Ser. No. | Time (GCT) 1959 | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro. meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|-----------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 1 | 0020 | 3/6 | 21°17.5' | 156°21.5' | 74.8 | 08 | 20 | 75.7 | 68.3 | 1019 | 00 | 8 | 4 | 7 | 4 | 07 | 3 | 34.65 |
| 2 | 0600 | 3/6 | 21°48' | 156°12' | 74.7 | 08 | 20 | 73.2 | 67.3 | 1021 | 00 | 8 | 6 | 7 | 4 | XX | X | 34.56 |
| 3 | 1200 | 3/6 | 22°15.5' | 155°54.8' | 72.8 | 06 | 24 | 72.0 | 66.8 | 1022 | 00 | X 1/ | 5 | 7 | 5 | 06 | 3 | 34.98 |
| 4 | 1800 | 3/6 | 22°44.8' | 155°35' | 73.2 | 08 | 20 | 71.8 | 64.1 | 1023 | 00 | 8 | 6 | 7 | 4 | 06 | 3 | 35.02 |
| 5 | 0000 | 3/7 | 23°22.3' | 155°17.5' | 72.8 | 08 | 23 | 74.0 | 65.6 | 1022 | 01 | 8 | 2 | 7 | 4 | 07 | 3 | 35.00 |
| 6 | 0300 | 3/7 | 23°41.5' | 155°11' | 72.8 | 09 | 22 | 72.8 | 65.0 | 1021 | 02 | 8 | 2 | 7 | 4 | 06 | 3 | 34.97 |
| 7 | 0600 | 3/7 | 23°55.3' | 155°01.5' | 72.3 | 08 | 18 | 72.3 | 65.5 | 1024 | 00 | 8 | 3 | 7 | 4 | 06 | 3 | 34.96 |
| 8 | 1000 | 3/7 | 23°57.5' | 154°42.8' | 72.7 | 09 | 16 | 71.9 | 64.7 | 1024 | 00 | 8 | 2 | 7 | 4 | 06 | 3 | 34.95 |
| 9 | 1400 | 3/7 | 23°56.2' | 154°22' | 72.1 | 10 | 20 | 71.0 | 64.2 | 1022 | 01 | X | 0 | 7 | 4 | 08 | 3 | 35.04 |
| 10 | 1800 | 3/7 | 23°56' | 154°02.5' | 71.3 | 10 | 20 | 71.9 | 61.6 | 1023 | 02 | 8 | 6 | 7 | 4 | 08 | 3 | 35.19 |
| 11 | 0000 | 3/8 | 23°57' | 153°31' | 70.9 | 09 | 18 | 72.0 | 65.3 | 1021 | 02 | 8 | 6 | 7 | 4 | 08 | 3 | 35.21 |
| 12 | 0500 | 3/8 | 23°56.2' | 152°56' | 70.3 | 09 | 18 | 71.4 | 64.0 | 1022 | 02 | 8 | 5 | 7 | 4 | 08 | 3 | 35.24 |
| 13 | 0900 | 3/8 | 23°55.8' | 152°35' | 70.4 | 09 | 23 | 72.3 | 63.5 | 1023 | 00 | X | X | 7 | 4 | 08 | 3 | 35.24 |
| 14 | 1300 | 3/8 | 23°55.5' | 152°13' | 70.2 | 09 | 20 | 69.5 | 64.5 | 1022 | 00 | X | 6 | 7 | 4 | 08 | 3 | 35.22 |
| 15 | 1700 | 3/8 | 23°55.8' | 151°53' | 70.8 | 10 | 16 | 71.6 | 61.9 | 1022 | 15 | 6 | 7 | 7 | 4 | 08 | 3 | 35.16 |
| 16 | 2100 | 3/8 | 23°57' | 151°32.3' | 71.5 | 09 | 16 | 71.3 | 64.1 | 1024 | 02 | 6 | 7 | 7 | 4 | 08 | 3 | 35.07 |
| 17 | 0100 | 3/9 | 23°57.8' | 151°13.2' | 71.2 | 10 | 21 | 69.7 | 64.0 | 1022 | 02 | 8 | 8 | 7 | 4 | 08 | 3 | 35.08 |
| 18 | 0500 | 3/9 | 23°58.2' | 150°53' | 71.0 | 10 | 20 | 71.2 | 64.0 | 1022 | 02 | 8 | 8 | 7 | 4 | 08 | 3 | 35.08 |
| 19 | 0900 | 3/9 | 23°58.5' | 150°31.5' | 70.8 | 10 | 21 | 72.0 | 64.3 | 1023 | 00 | X | 6 | 7 | 4 | 08 | 3 | 35.17 |
| 20 | 1300 | 3/9 | 23°59.2' | 150°10' | 70.9 | 10 | 24 | 71.0 | 62.3 | 1021 | 00 | 8 | 8 | 7 | 5 | 08 | 3 | 35.11 |
| 21 | 1700 | 3/9 | 24°01' | 149°49.5' | 71.3 | 10 | 22 | 70.9 | 64.0 | 1023 | 00 | 6 | 7 | 7 | 5 | 08 | 3 | 35.05 |
| 22 | 2100 | 3/9 | 24°05' | 149°32' | 71.2 | 10 | 19 | 72.7 | 64.5 | 1024 | 02 | 6 | 7 | 7 | 5 | 08 | 3 | 35.09 |
| 23 | 0100 | 3/10 | 24°03.5' | 149°08' | 72.5 | 09 | 18 | 72.2 | 66.0 | 1021 | 01 | 8 | 3 | 7 | 5 | 08 | 3 | 34.89 |
| 24 | 0500 | 3/10 | 24°01.5' | 148°41' | 71.8 | 09 | 20 | 70.9 | 65.0 | 1023 | 03 | 8 | 6 | 7 | 5 | 08 | 3 | 34.96 |
| 25 | 0900 | 3/10 | 24°01' | 148°20' | 71.6 | 09 | 13 | 70.3 | 64.0 | 1025 | 02 | X | 4 | 7 | 5 | 08 | 3 | 35.05 |
| 26 | 1300 | 3/10 | 24°00' | 147°57' | 70.5 | 09 | 20 | 70.6 | 62.5 | 1022 | 01 | 8 | 2 | 7 | 5 | 08 | 3 | 35.03 |
| 27 | 1700 | 3/10 | 23°59.5' | 147°36.5' | 71.7 | 08 | 23 | 70.6 | 62.0 | 1022 | 15 | 4 | 5 | 7 | 5 | 08 | 3 | 34.99 |
| 28 | 2100 | 3/10 | 23°59.5' | 147°20' | 71.7 | 09 | 21 | 70.7 | 62.1 | 1023 | 02 | 8 | 6 | 7 | 5 | 08 | 3 | 35.04 |
| 29 | 0100 | 3/11 | 23°57.8' | 146°59' | 71.1 | 09 | 23 | 70.9 | 63.0 | 1020 | 02 | 8 | 6 | 7 | 5 | 08 | 6 | 35.09 |
| 30 | 0500 | 3/11 | 23°56.5' | 146°37.8' | 71.3 | 09 | 23 | 70.5 | 63.6 | 1021 | 02 | 8 | 4 | 7 | 5 | 08 | 6 | 35.07 |
| 31 | 0900 | 3/11 | 23°55.2' | 146°17' | 70.3 | 09 | 18 | 70.1 | 62.8 | 1022 | 00 | X | 4 | 7 | 5 | 08 | 3 | 35.09 |
| 32 | 1300 | 3/11 | 23°54' | 145°56.5' | 70.5 | 09 | 23 | 69.7 | 62.4 | 1021 | 01 | 8 | 2 | 7 | 5 | 08 | 6 | 35.15 |
| 33 | 1700 | 3/11 | 23°53' | 145°31.5' | 70.5 | 08 | 18 | 70.2 | 63.7 | 1022 | 15 | 0 | 8 | 7 | 4 | 07 | 3 | 35.16 |
| 34 | 2100 | 3/11 | 23°52.5' | 145°08' | 70.0 | 08 | 23 | 70.8 | 63.7 | 1023 | 02 | 4 | 8 | 7 | 5 | 07 | 3 | 35.17 |
| 35 | 0000 | 3/12 | 23°36' | 145°09.5' | 70.1 | 06 | 28 | 70.1 | 64.7 | 1021 | 02 | 8 | 8 | 7 | 5 | 06 | 6 | 35.16 |
| 36 | 0300 | 3/12 | 23°09.7' | 145°25' | 70.5 | 06 | 32 | 70.5 | 65.9 | 1020 | 02 | 8 | 8 | 7 | 5 | 06 | 6 | 35.17 |
| 37 | 0600 | 3/12 | 22°46.5' | 145°37' | 71.8 | 07 | 26 | 70.7 | 64.5 | 1022 | 02 | X | 6 | 7 | 5 | 06 | 6 | 35.03 |
| 38 | 0900 | 3/12 | 22°26.2' | 145°46' | 71.9 | 07 | 26 | 71.0 | 66.3 | 1022 | 80 | X | 8 | 7 | 5 | 06 | 6 | 34.87 |
| 39 | 1200 | 3/12 | 22°06' | 145°55.2' | 72.5 | 07 | 26 | 72.0 | 67.0 | 1020 | 01 | 8 | 2 | 7 | 5 | 06 | 6 | 34.88 |
| 40 | 1500 | 3/12 | 21°45.3' | 146°05' | 72.0 | 07 | 25 | 71.6 | 67.0 | 1019 | 02 | 8 | 8 | 7 | 5 | 06 | 6 | 34.94 |

1/ X indicates that no observation was recorded.

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) | |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|-------|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | | |
| 41 | 1800 | 3/12 | 21°24.5' | 146°14.2' | 72.4 | 07 | 23 | 72.0 | 67.4 | 1020 | 02 | 8 | 6 | 7 | 5 | 06 | 6 | 34.94 | |
| 42 | 2100 | 3/12 | 21°05' | 146°23.3' | 72.3 | 07 | 22 | 72.1 | 68.1 | 1020 | 25 | 6 | 6 | 7 | 5 | 07 | 6 | 35.06 | |
| 43 | 0000 | 3/13 | 20°44' | 146°32' | 73.0 | 07 | 24 | 71.9 | 68.8 | 1019 | 50 | 8 | 7 | 7 | 5 | 06 | 6 | 34.91 | |
| 44 | 0300 | 3/13 | 20°20.2' | 146°41' | 73.0 | 07 | 19 | 72.9 | 69.2 | 1017 | 02 | 8 | 8 | 7 | 4 | 06 | 3 | 34.89 | |
| 45 | 0600 | 3/13 | 19°52.2' | 146°51.8' | 73.0 | 08 | 22 | 72.9 | 69.1 | 1018 | 80 | 8 | 8 | 6 | 4 | 06 | 3 | 34.89 | |
| 46 | 0900 | 3/13 | 19°30.6' | 146°58.2' | 73.0 | 08 | 24 | 73.1 | 69.5 | 1021 | 00 | 8 | 8 | 2 | 7 | 4 | 06 | 3 | 34.96 |
| 47 | 1200 | 3/13 | 19°01.5' | 147°10' | 73.1 | 09 | 15 | 71.9 | 70.2 | 1016 | 51 | 8 | 8 | 6 | 3 | 06 | 3 | 34.89 | |
| 48 | 1500 | 3/13 | 18°33' | 147°21' | 75.0 | 09 | 16 | 75.0 | 71.8 | 1015 | 01 | 8 | 2 | 7 | 3 | 06 | 3 | 34.49 | |
| 49 | 1700 | 3/13 | 18°19.5' | 147°29.2' | 75.0 | 09 | 18 | 74.1 | 69.8 | 1015 | 25 | 1 | 6 | 7 | 4 | 07 | 3 | 34.46 | |
| 50 | 2235 | 3/13 | 18°21' | 147°34.5' | 75.1 | 09 | 12 | 76.3 | 71.1 | 1014 | 02 | 8 | 2 | 7 | 3 | 08 | 3 | 34.46 | |
| 51 | 0100 | 3/14 | 18°27' | 147°30.5' | 75.6 | 09 | 12 | 77.4 | 71.6 | 1012 | 03 | 8 | 5 | 7 | 3 | 08 | 3 | 34.50 | |
| 52 | 0600 | 3/14 | 17°45.2 | 147°42' | 74.9 | 11 | 10 | 76.2 | 71.2 | 1014 | 02 | 8 | 2 | 7 | 2 | XX | 1 | 34.53 | |
| 53 | 0900 | 3/14 | 17°23' | 147°51' | 75.2 | 12 | 06 | 75.7 | 70.8 | 1016 | 13 | x | 1 | 8 | 2 | 00 | 0 | 34.53 | |
| 54 | 1200 | 3/14 | 16°56' | 148°04.2' | 75.2 | 10 | 05 | 75.0 | 71.0 | 1014 | 02 | 8 | 1 | 8 | 2 | 08 | 1 | 34.45 | |
| 55 | 1500 | 3/14 | 16°28.5' | 148°17.2' | 75.2 | 17 | 06 | 75.0 | 70.9 | 1013 | 03 | 8 | 3 | 8 | 2 | 08 | 1 | 34.54 | |
| 56 | 1800 | 3/14 | 16°04' | 148°28.5' | 75.4 | 13 | 06 | 77.1 | 71.4 | 1015 | 02 | 4 | 2 | 8 | 2 | 06 | 1 | 34.47 | |
| 57 | 2100 | 3/14 | 15°34.2' | 148°34.5' | 77.2 | 17 | 02 | 79.5 | 72.0 | 1015 | 02 | 4 | 1 | 8 | 1 | 08 | 4 | 34.45 | |
| 58 | 0000 | 3/15 | 15°14.2' | 148°43' | 78.0 | 07 | 06 | 77.5 | 71.7 | 1013 | 03 | 4 | 6 | 8 | 2 | 07 | 1 | 34.40 | |
| 59 | 0300 | 3/15 | 14°45.3' | 148°54' | 77.0 | 11 | 06 | 77.2 | 72.0 | 1013 | 03 | 8 | 7 | 2 | 06 | 1 | 34.34 | | |
| 60 | 0600 | 3/15 | 14°21.2' | 149°05.5' | 77.0 | 05 | 06 | 77.9 | 72.8 | 1015 | 02 | 8 | 6 | 7 | 2 | 06 | 1 | 34.21 | |
| 61 | 0900 | 3/15 | 14°01' | 149°17' | 76.7 | 09 | 10 | 77.5 | 73.0 | 1015 | 02 | 8 | 8 | 6 | 2 | 06 | 1 | 34.30 | |
| 62 | 1200 | 3/15 | 14°19.2' | 149°39' | 76.9 | 04 | 10 | 76.9 | 72.0 | 1014 | 01 | 8 | 2 | 7 | 2 | 08 | 1 | 34.29 | |
| 63 | 1500 | 3/15 | 14°40' | 150°02' | 76.9 | 06 | 13 | 76.5 | 72.5 | 1014 | 02 | 8 | 2 | 7 | 2 | 07 | 1 | 34.38 | |
| 64 | 1710 | 3/15 | 14°44' | 150°14.5' | 76.9 | 06 | 15 | 76.8 | 72.0 | 1016 | 02 | 8 | 2 | 7 | 2 | 03 | 1 | 34.46 | |
| 65 | 2210 | 3/15 | 14°44.5' | 150°13' | 77.2 | 06 | 06 | 78.5 | 72.7 | 1016 | 02 | 4 | 2 | 8 | 2 | 06 | 1 | 34.42 | |
| 66 | 0030 | 3/16 | 14°49.5' | 150°14.5' | 77.1 | 05 | 16 | 79.4 | 72.9 | 1014 | 02 | 4 | 2 | 8 | 2 | 06 | 1 | 34.42 | |
| 67 | 0300 | 3/16 | 15°02.7' | 150°28.2' | 76.9 | 06 | 14 | 78.7 | 72.1 | 1015 | 02 | 4 | 2 | 8 | 2 | 06 | 1 | 34.34 | |
| 68 | 0600 | 3/16 | 15°21' | 150°48.5' | 76.8 | 06 | 15 | 77.7 | 72.4 | 1018 | 02 | 4 | 1 | 8 | 2 | 06 | 1 | 34.17 | |
| 69 | 0900 | 3/16 | 15°39' | 151°03.5' | 76.5 | 06 | 15 | 76.8 | 72.2 | 1019 | 00 | 4 | 4 | 8 | 2 | 06 | 1 | 34.25 | |
| 70 | 1200 | 3/16 | 16°00' | 151°25' | 76.1 | 06 | 15 | 76.0 | 71.8 | 1018 | 01 | 8 | 2 | 8 | 2 | 06 | 1 | 34.44 | |
| 71 | 1500 | 3/16 | 16°22.8' | 151°47' | 76.3 | 06 | 15 | 75.6 | 71.3 | 1018 | 02 | 8 | 2 | 8 | 2 | 06 | 1 | 34.23 | |
| 72 | 1800 | 3/16 | 16°45' | 152°05.5' | 76.3 | 04 | 16 | 77.1 | 71.0 | 1020 | 02 | 8 | 2 | 8 | 2 | 03 | 1 | 34.44 | |
| 73 | 2100 | 3/16 | 17°07' | 152°22' | 76.0 | 04 | 17 | 78.2 | 72.1 | 1021 | 02 | 8 | 2 | 8 | 3 | 02 | 1 | 34.34 | |
| 74 | 0000 | 3/17 | 17°29.5' | 152°40' | 76.0 | 04 | 18 | 77.4 | 71.3 | 1018 | 03 | 8 | 4 | 8 | 3 | 03 | 3 | 34.35 | |
| 75 | 0300 | 3/17 | 17°52.3' | 152°57' | 76.0 | 05 | 22 | 76.4 | 71.2 | 1018 | 02 | 8 | 2 | 8 | 3 | 03 | 3 | 34.42 | |
| 76 | 0600 | 3/17 | 18°15.7' | 153°13.5' | 75.1 | 05 | 21 | 75.2 | 70.0 | 1020 | 02 | 8 | 2 | 8 | 3 | 03 | 3 | 34.51 | |
| 77 | 0900 | 3/17 | 18°34.8' | 153°26' | 74.5 | 05 | 19 | 75.2 | 69.2 | 1022 | 02 | 8 | 1 | 8 | 3 | 03 | 3 | 34.65 | |
| 78 | 1200 | 3/17 | 19°01.5' | 153°30' | 74.9 | 05 | 17 | 74.5 | 69.4 | 1021 | 03 | 8 | 2 | 8 | 3 | 03 | 3 | 34.57 | |
| 79 | 1500 | 3/17 | 19°27.5' | 153°33.5' | 74.0 | 05 | 17 | 73.7 | 69.0 | 1021 | 02 | 8 | 2 | 8 | 3 | 03 | 3 | 34.66 | |
| 80 | 1800 | 3/17 | 19°53.2' | 153°36.5' | 73.9 | 06 | 18 | 74.3 | 69.0 | 1023 | 02 | 8 | 3 | 8 | 3 | 03 | 3 | 34.66 | |

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.). | Wind | | Air temp. | | Baro- meter (mb.) | Wear- ther | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) | |
|----------|------------|------------|-------------|--------------|-------------------|------------|-------------|----------------|----------------|-------------------|------------|--------|-------|------------|------------|------|----------------|--|------|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | | |
| 81 | 2100 | 3/17 | 20°19' | 153°40.5' | 74.4 | 06 | 17 | 76.3 | 69.3 | 1022 | 02 | 8 | 2 | 8 | 2 | 03 | 3 | 34.60 | 0.18 |
| 82 | 0000 | 3/18 | 20°45' | 153°43.5' | 74.5 | 04 | 14 | 74.5 | 67.8 | 1022 | 02 | 8 | 2 | 8 | 2 | 03 | 3 | 34.65 | 0.19 |
| 83 | 0300 | 3/18 | 21°11' | 153°47.5' | 73.9 | 04 | 15 | 75.8 | 68.8 | 1021 | 02 | 8 | 2 | 8 | 2 | 03 | 3 | 34.81 | |
| 84 | 0600 | 3/18 | 21°36' | 153°50.6' | 73.4 | 05 | 20 | 74.0 | 69.1 | 1022 | 02 | 8 | 5 | 7 | 3 | 03 | 3 | 34.81 | |
| 85 | 0900 | 3/18 | 21°57' | 153°52.8' | 71.3 | 06 | 19 | 74.0 | 70.1 | 1023 | 02 | 8 | 2 | 7 | 3 | 03 | 3 | 35.21 | |
| 86 | 1200 | 3/18 | 22°22.8' | 153°56.5' | 72.6 | 05 | 16 | 73.5 | 70.0 | 1023 | 02 | 8 | 5 | 7 | 3 | 03 | 3 | 34.98 | |
| 87 | 1500 | 3/18 | 22°48' | 154°01' | 71.8 | 06 | 15 | 72.0 | 69.0 | 1022 | 01 | 8 | 1 | 8 | 3 | 03 | 3 | 35.16 | |
| 88 | 1800 | 3/18 | 22°53.5' | 154°18' | 72.7 | 05 | 13 | 73.8 | 69.6 | 1023 | 02 | 8 | 6 | 8 | 2 | 04 | 3 | 35.00 | |
| 89 | 2100 | 3/18 | 22°40' | 154°48.8' | 72.9 | 06 | 13 | 74.9 | 70.2 | 1023 | 02 | 8 | 4 | 8 | 3 | 03 | 3 | 34.94 | |
| 90 | 0000 | 3/19 | 22°33' | 155°02.3' | 75.2 | 07 | 09 | 76.0 | 70.7 | 1021 | 02 | 8 | 5 | 8 | 2 | 07 | 1 | 34.64 | |
| 91 | 0300 | 3/19 | 22°15.5' | 155°23.5' | 74.3 | 04 | 12 | 76.9 | 70.7 | 1021 | 01 | 8 | 2 | 8 | 2 | 07 | 1 | 34.70 | |
| 92 | 0600 | 3/19 | 22°02.8' | 155°53' | 74.9 | 06 | 17 | 75.0 | 69.6 | 1022 | 02 | 8 | 2 | 8 | 2 | 07 | 1 | 34.60 | |
| 93 | 0900 | 3/19 | 21°53.2' | 156°15.8' | 74.7 | 06 | 19 | 74.7 | 70.0 | 1022 | 25 | 8 | 6 | 8 | 2 | 07 | 1 | 34.63 | |
| 94 | 1200 | 3/19 | 21°43' | 156°45' | 74.0 | 08 | 19 | 74.1 | 70.1 | 1021 | 01 | 8 | 2 | 8 | 2 | 07 | 1 | 34.74 | |
| 95 | 1500 | 3/19 | 21°31.2' | 157°15.5' | 74.0 | 08 | 19 | 73.8 | 69.1 | 1021 | 03 | 8 | 5 | 8 | 2 | 07 | 1 | 34.71 | |
| 96 | 0000 | 3/22 | 21°20.5' | 158°20.8' | 75.6 | 10 | 13 | 79.5 | 69.5 | 1020 | 02 | 8 | 1 | 8 | 2 | 07 | 1 | 34.65 | |
| 97 | 0300 | 3/22 | 21°31.5' | 158°49' | 75.0 | 08 | 20 | 75.8 | 69.0 | 1021 | 02 | 8 | 1 | 8 | 3 | 07 | 1 | 34.65 | |
| 98 | 0600 | 3/22 | 21°42.8' | 159°18.5' | 75.8 | 06 | 22 | 76.3 | 70.0 | 1022 | 00 | 8 | 5 | 8 | 3 | 07 | 1 | 34.46 | |
| 99 | 0900 | 3/22 | 21°53' | 159°39' | 75.1 | 08 | 16 | 76.0 | 69.2 | 1023 | 00 | 8 | 5 | 7 | 2 | 07 | 1 | 34.44 | |
| 100 | 1200 | 3/22 | 22°07' | 160°09' | 75.0 | 06 | 19 | 75.0 | 70.0 | 1021 | 02 | 5 | 4 | 8 | 3 | 06 | 1 | 34.55 | |
| 101 | 1500 | 3/22 | 22°20' | 160°39' | 73.9 | 08 | 18 | 73.6 | 69.8 | 1019 | 01 | 8,5 | 2 | 8 | 3 | 06 | 1 | 34.81 | |
| 102 | 1800 | 3/22 | 22°35.5' | 161°04.7' | 74.0 | 08 | 17 | 75.4 | 69.8 | 1021 | 00 | 8 | 5 | 8 | 3 | 05 | 1 | 34.72 | |
| 103 | 2110 | 3/22 | 22°55' | 161°30' | 74.3 | 09 | 16 | 75.7 | 69.0 | 1021 | 01 | 8 | 2 | 8 | 3 | 06 | 1 | 34.81 | |
| 104 | 0000 | 3/23 | 22°52' | 161°46' | 74.2 | 13 | 15 | 76.0 | 69.5 | 1019 | 02 | 8 | 2 | 8 | 3 | 12 | 1 | 34.87 | |
| 105 | 0300 | 3/23 | 22°32' | 161°38' | 74.5 | 16 | 06 | 75.2 | 68.3 | 1018 | 02 | 8 | 1 | 8 | 2 | 13 | 1 | 34.64 | |
| 106 | 0600 | 3/23 | 22°08.5' | 161°30' | 74.2 | 16 | 06 | 75.2 | 68.6 | 1019 | 02 | 8 | 1 | 8 | 2 | 12 | 1 | 34.74 | |
| 107 | 0900 | 3/23 | 21°44.5' | 161°21.5' | 74.1 | 12 | 04 | 75.5 | 69.4 | 1020 | 03 | 8 | 2 | 8 | 3 | 12 | 1 | 34.84 | |
| 108 | 1200 | 3/23 | 21°15' | 161°14.5' | 75.8 | 16 | 07 | 75.0 | 69.0 | 1018 | 00 | X | 0 | 8 | 2 | 12 | 1 | 34.24 | |
| 109 | 1500 | 3/23 | 20°45.7' | 161°07.2' | 75.7 | 14 | 05 | 74.7 | 69.9 | 1018 | 02 | X | 0 | 8 | 2 | 11 | 1 | 34.52 | |
| 110 | 1040 | 3/23 | 20°28.5' | 161°07.3' | 75.3 | 09 | 12 | 75.5 | 70.2 | 1019 | 03 | 6 | 6 | 8 | 2 | 06 | 1 | 34.60 | |
| 111 | 2310 | 3/23 | 20°29.4' | 161°08' | 75.8 | 09 | 12 | 77.9 | 71.5 | 1019 | 02 | 5 | 2 | 8 | 2 | 06 | 1 | 34.62 | |
| 112 | 0120 | 3/24 | 20°30' | 161°03' | 76.1 | 06 | 11 | 78.3 | 71.5 | 1018 | 15 | 8 | 6 | 7 | 2 | 06 | 1 | 34.51 | |
| 113 | 0330 | 3/24 | 20°21' | 161°00' | 76.0 | 09 | 11 | 77.0 | 70.9 | 1018 | 02 | 8,4 | 7 | 7 | 2 | 11 | 1 | 34.51 | |
| 114 | 0600 | 3/24 | 19°58' | 160°51.5' | 76.5 | 11 | 11 | 76.4 | 70.3 | 1019 | 01 | 8 | 1 | 7 | 2 | 12 | 1 | 34.27 | |
| 115 | 0900 | 3/24 | 19°36.2' | 160°44.5' | 76.8 | 13 | 10 | 77.3 | 69.9 | 1021 | 02 | X | 0 | 7 | 3 | 12 | 1 | 34.23 | |
| 116 | 1200 | 3/24 | 19°09.8' | 160°37.8' | 76.6 | 11 | 10 | 76.2 | 70.6 | 1020 | 02 | X | 0 | 7 | 3 | 11 | 3 | 34.06 | |
| 117 | 1500 | 3/24 | 18°43.7' | 160°31.2' | 76.8 | 10 | 13 | 76.2 | 69.4 | 1019 | 03 | 8 | 1 | 7 | 3 | 11 | 3 | 33.96 | |
| 118 | 1800 | 3/24 | 18°17.8' | 160°24' | 76.9 | 09 | 18 | 76.4 | 71.5 | 1020 | 15 | 8 | 5 | 7 | 3 | 11 | 3 | 34.14 | |
| 119 | 2100 | 3/24 | 17°51' | 160°16.8' | 76.9 | 10 | 19 | 78.2 | 69.4 | 1021 | 01 | 4 | 1 | 7 | 3 | 11 | 3 | 34.15 | |
| 120 | 0000 | 3/25 | 18°10' | 159°54.5' | 77.0 | 09 | 19 | 77.9 | 70.0 | 1019 | 02 | 4,8 | 6 | 7 | 3 | 09 | 3 | 34.15 | |

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. (°T.) | | |
| 121 | 0300 | 3/25 | 18°28' | 159°33.0' | 76.2 | 07 | 21 | 79.1 | 71.5 | 1019 | 02 | 8 | 6 | 7 | 3 | 08 | 3 | 34.36 |
| 122 | 0600 | 3/25 | 18°48' | 159°11' | 76.1 | 07 | 14 | 77.1 | 70.3 | 1020 | 02 | 8 | 2 | 7 | 3 | 09 | 3 | 34.40 |
| 123 | 0900 | 3/25 | 19°04' | 158°50' | 76.0 | 12 | 26 | 76.7 | 69.9 | 1021 | 02 | 8 | 1 | 7 | 3 | 09 | 3 | 34.43 |
| 124 | 1200 | 3/25 | 19°23.2' | 158°28.5' | 76.1 | 09 | 16 | 75.8 | 71.0 | 1020 | 03 | 8 | 4 | 7 | 3 | 09 | 3 | 34.16 |
| 125 | 1500 | 3/25 | 19°42' | 158°08' | 76.0 | 10 | 10 | 75.8 | 70.5 | 1019 | 03 | 8 | 7 | 7 | 3 | 09 | 3 | 34.23 |
| 126 | 1800 | 3/25 | 19°57' | 157°44.2' | 75.1 | 07 | 17 | 74.9 | 70.6 | 1021 | 80 | 0 | 6 | 7 | 5 | 07 | 3 | 34.64 |
| 127 | 2100 | 3/25 | 20°05.5' | 157°29.2' | 74.8 | 08 | 19 | 77.6 | 71.5 | 1022 | 02 | 8 | 1 | 7 | 5 | 07 | 3 | 34.68 |
| 128 | 0300 | 3/26 | 20°31' | 157°04.5' | 75.2 | 09 | 22 | 77.6 | 71.0 | 1018 | 02 | 8 | 2 | 8 | 4 | 08 | 3 | 34.49 |
| 129 | 0900 | 3/26 | 21°09' | 156°30.5' | 74.1 | 09 | 24 | 75.2 | 70.0 | 1022 | 02 | 8 | 4 | 7 | 4 | 08 | 3 | 34.63 |
| 130 | 1500 | 3/26 | 21°24.2' | 156°03.8' | 73.4 | 11 | 23 | 74.1 | 70.0 | 1018 | 03 | 8 | 7 | 6 | 4 | 09 | 3 | 34.55 |
| 131 | 2000 | 3/26 | 21°44.3' | 155°36.8' | 74.5 | 10 | 24 | 75.3 | 70.7 | 1024 | 14 | 8 | 3 | 7 | 4 | 08 | 3 | 34.63 |
| 132 | 0000 | 3/27 | 22°05.2' | 155°12.5' | 74.8 | 11 | 26 | 77.0 | 70.2 | 1022 | 03 | 8 | 7 | 7 | 4 | 10 | 3 | 34.49 |
| 133 | 0400 | 3/27 | 22°22.2' | 154°48.2' | 74.5 | 10 | 25 | 75.5 | 69.9 | 1022 | 01 | 8 | 5 | 7 | 4 | 09 | 6 | 34.63 |
| 134 | 0800 | 3/27 | 22°41.2' | 154°24.8' | 74.0 | 10 | 23 | 74.9 | 69.5 | 1024 | 02 | 8 | 5 | 7 | 4 | 09 | 6 | 34.66 |
| 135 | 1200 | 3/27 | 22°57' | 153°56' | 72.0 | 10 | 20 | 73.8 | 67.0 | 1024 | 02 | 8 | 7 | 7 | 4 | 09 | 6 | 35.00 |
| 136 | 1600 | 3/27 | 23°12.5' | 153°26.5' | 72.7 | 11 | 24 | 72.2 | 65.9 | 1024 | 14 | 6 | 7 | 7 | 3 | 09 | 3 | 34.95 |
| 137 | 2000 | 3/27 | 23°28' | 152°56.2' | 72.1 | 10 | 18 | 75.4 | 67.4 | 1026 | 02 | 6 | 7 | 7 | 3 | 08 | 3 | 35.08 |
| 138 | 0000 | 3/28 | 23°44.5' | 152°24' | 72.6 | 12 | 22 | 75.2 | 66.5 | 1025 | 01 | 8 | 1 | 7 | 3 | 09 | 3 | 34.95 |
| 139 | 0400 | 3/28 | 24°01.7' | 151°50.5' | 72.5 | 11 | 18 | 74.5 | 66.8 | 1024 | 02 | 8 | 1 | 7 | 3 | 09 | 3 | 35.01 |
| 140 | 0800 | 3/28 | 24°13' | 151°21.2' | 73.0 | 09 | 16 | 73.3 | 66.8 | 1027 | 02 | 8 | 2 | 7 | 3 | 09 | 3 | 34.77 |
| 141 | 1200 | 3/28 | 24°11' | 150°51' | 72.9 | 10 | 20 | 70.5 | 67.0 | 1025 | 03 | 8 | 6 | 7 | 3 | 09 | 3 | 34.73 |
| 142 | 1600 | 3/28 | 24°09.2' | 150°16.8' | 71.7 | 08 | 22 | 70.8 | 66.8 | 1024 | 15 | 8 | 3 | 7 | 3 | 09 | 3 | 35.09 |
| 143 | 2000 | 3/28 | 24°09.8' | 149°47.5' | 72.1 | 11 | 19 | 72.3 | 62.6 | 1025 | 02 | 8 | 2 | 7 | 3 | 09 | 3 | 34.93 |
| 144 | 0000 | 3/29 | 24°08.5' | 149°21.8' | 72.0 | 11 | 21 | 72.1 | 64.3 | 1023 | 01 | 8 | 1 | 7 | 4 | 10 | 3 | 34.97 |
| 145 | 0400 | 3/29 | 24°05.5' | 148°57.8' | 71.8 | 10 | 20 | 72.5 | 65.0 | 1024 | 03 | 8 | 3 | 7 | 4 | 10 | 3 | 35.04 |
| 146 | 0800 | 3/29 | 24°02' | 148°35' | 71.7 | 09 | 20 | 72.5 | 63.8 | 1026 | 01 | 8 | 2 | 7 | 4 | 10 | 3 | 35.06 |
| 147 | 1200 | 3/29 | 23°57.5' | 148°09.5' | 71.9 | 10 | 23 | 71.6 | 64.5 | 1024 | 02 | 8 | 6 | 7 | 4 | 10 | 3 | 34.96 |
| 148 | 1615 | 3/29 | 23°53.8' | 147°43.5' | 71.4 | 10 | 24 | 71.3 | 61.5 | 1025 | 15 | 6 | 7 | 7 | 4 | 08 | 4 | 35.04 |
| 149 | 2000 | 3/29 | 23°31' | 147°28' | 71.4 | 10 | 22 | 72.5 | 63.2 | 1025 | 15 | 6 | 7 | 7 | 4 | 09 | 3 | 35.06 |
| 150 | 0000 | 3/30 | 23°03' | 147°11' | 71.4 | 08 | 20 | 71.0 | 65.5 | 1023 | 21 | 8 | 6 | 7 | 4 | 09 | 6 | 35.06 |
| 151 | 0400 | 3/30 | 22°36.5' | 146°53' | 72.4 | 11 | 20 | 71.9 | 66.2 | 1021 | 01 | 8 | 5 | 7 | 4 | 10 | 6 | 34.97 |
| 152 | 0800 | 3/30 | 22°21.5' | 146°35.3' | 72.2 | 09 | 24 | 72.4 | 66.9 | 1023 | 00 | 8 | 6 | 7 | 4 | 10 | 3 | 34.76 |
| 153 | 1200 | 3/30 | 22°07.2' | 146°18.5' | 72.2 | 10 | 22 | 71.9 | 65.0 | 1021 | 00 | 8,4 | 6 | 7 | 4 | 10 | 6 | 34.65 |
| 154 | 1600 | 3/30 | 21°53' | 146°02' | 72.3 | 09 | 25 | 72.4 | 65.3 | 1022 | 15 | 6 | 6 | 7 | 4 | 09 | 6 | 34.91 |
| 155 | 2000 | 3/30 | 21°32.7' | 145°46' | 72.7 | 10 | 19 | 72.3 | 66.4 | 1023 | 15 | 8,4 | 6 | 7 | 4 | 09 | 3 | 34.83 |
| 156 | 0000 | 3/31 | 21°04' | 145°30.8' | 72.9 | 10 | 20 | 72.8 | 64.9 | 1020 | 02 | 8,4 | 6 | 7 | 4 | 10 | 6 | 34.82 |
| 157 | 0400 | 3/31 | 20°35.5' | 145°16' | 72.8 | 10 | 20 | 72.0 | 65.5 | 1020 | 02 | 8 | 7 | 7 | 4 | 10 | 6 | 34.82 |
| 158 | 0830 | 3/31 | 20°05' | 145°38.7' | 72.9 | 09 | 17 | 72.3 | 66.5 | 1022 | 25 | 8 | 2 | 7 | 4 | 10 | 3 | 34.84 |
| 159 | 1200 | 3/31 | 19°36' | 146°03' | 73.3 | 10 | 19 | 71.7 | 67.8 | 1019 | 02 | 8 | 6 | 7 | 4 | 10 | 6 | 34.77 |
| 160 | 1500 | 3/31 | 19°11.2' | 146°23.8' | 73.6 | 08 | 19 | 71.8 | 67.3 | 1019 | 02 | 8 | 7 | 7 | 3 | 10 | 3 | 34.59 |

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 161 | 1650 | 3/31 | 19°00' | 146°36' | 73.7 | 09 | 19 | 73.0 | 67.5 | 1019 | 15 | 6 | 7 | 7 | 3 | 07 | 3 | 34.69 |
| 162 | 2225 | 3/31 | 19°00.5' | 146°37' | 73.8 | 10 | 20 | 74.8 | 69.0 | 1018 | 02 | 4,8 | 4 | 7 | 3 | 08 | 3 | 34.73 |
| 163 | 0035 | 4/1 | 19°04' | 146°34.5' | 73.9 | 10 | 12 | 75.5 | 69.5 | 1018 | 02 | 8,4 | 4 | 7 | 3 | 10 | 3 | 34.67 |
| 164 | 0300 | 4/1 | 18°48' | 146°48' | 74.3 | 08 | 13 | 75.0 | 69.8 | 1018 | 03 | 8,4 | 6 | 7 | 3 | 09 | 3 | 34.57 |
| 165 | 0600 | 4/1 | 18°23.8' | 147°08' | 74.0 | 10 | 20 | 73.1 | 69.0 | 1018 | 00 | 8 | 2 | 7 | 3 | 09 | 3 | 34.60 |
| 166 | 0900 | 4/1 | 18°03.8' | 147°19.3' | 74.5 | 09 | 12 | 74.2 | 69.8 | 1018 | 02 | 8 | 1 | 7 | 3 | 09 | 3 | 34.57 |
| 167 | 1200 | 4/1 | 17°36' | 147°38' | 74.7 | 08 | 11 | 74.0 | 69.5 | 1017 | 02 | 8 | 1 | 7 | 3 | 09 | 3 | 34.48 |
| 168 | 1500 | 4/1 | 17°09.2' | 147°56' | 74.6 | 08 | 13 | 74.1 | 69.9 | 1016 | 03 | 8 | 3 | 7 | 3 | 09 | 3 | 34.57 |
| 169 | 1800 | 4/1 | 16°43' | 148°14.2' | 74.4 | 07 | 14 | 75.6 | 70.7 | 1018 | 02 | 8 | 3 | 7 | 3 | 08 | 3 | 34.64 |
| 170 | 2100 | 4/1 | 16°17.5' | 148°32.3' | 75.2 | 06 | 18 | 76.7 | 71.8 | 1018 | 02 | 8 | 3 | 7 | 3 | 08 | 3 | 34.49 |
| 171 | 0000 | 4/2 | 15°51.2' | 148°51.2' | 75.5 | 07 | 20 | 75.8 | 71.3 | 1015 | 02 | 8 | 3 | 7 | 3 | 08 | 3 | 34.49 |
| 172 | 0300 | 4/2 | 15°25' | 149°10' | 75.9 | 06 | 17 | 76.1 | 71.5 | 1015 | 03 | 8 | 6 | 7 | 3 | 07 | 3 | 34.32 |
| 173 | 0600 | 4/2 | 14°59' | 149°27.5' | 75.9 | 05 | 22 | 76.7 | 71.2 | 1015 | 02 | 8 | 2 | 7 | 3 | 07 | 3 | 34.24 |
| 174 | 0900 | 4/2 | 15°18' | 149°37.2' | 75.7 | 06 | 25 | 74.7 | 71.4 | 1016 | 03 | 8 | 6 | 6 | 3 | 07 | 3 | 34.32 |
| 175 | 1200 | 4/2 | 15°43' | 149°51.8' | 75.2 | 06 | 26 | 75.0 | 69.6 | 1014 | 01 | 8 | 2 | 7 | 4 | 07 | 3 | 34.27 |
| 176 | 1500 | 4/2 | 16°07' | 150°06.8' | 75.3 | 06 | 24 | 74.4 | 69.6 | 1014 | 03 | 8 | 5 | 7 | 4 | 07 | 3 | 34.49 |
| 177 | 1740 | 4/2 | 16°20.3' | 150°19.2' | 75.1 | 05 | 25 | 75.2 | 66.5 | 1017 | 02 | 4,8 | 2 | 7 | 6 | 05 | 3 | 34.55 |
| 178 | 2210 | 4/2 | 16°25' | 150°24.5' | 75.7 | 06 | 17 | 77.0 | 69.7 | 1015 | 02 | 8 | 3 | 7 | 5 | 05 | 3 | 34.50 |
| 179 | 0030 | 4/3 | 16°28' | 150°26' | 75.5 | 06 | 29 | 75.0 | 70.0 | 1014 | 15 | 8 | 6 | 7 | 4 | 06 | 6 | 34.53 |
| 180 | 0300 | 4/3 | 16°45' | 150°34' | 75.6 | 06 | 24 | 77.0 | 70.5 | 1014 | 02 | 8 | 4 | 7 | 4 | 06 | 6 | 34.58 |
| 181 | 0600 | 4/3 | 17°08.7' | 150°48.3' | 75.4 | 06 | 23 | 75.5 | 70.0 | 1016 | 80 | 8 | 2 | 7 | 4 | 06 | 6 | 34.57 |
| 182 | 0900 | 4/3 | 17°31' | 151°03.7' | 75.2 | 07 | 23 | 73.7 | 69.7 | 1017 | 02 | 8 | 2 | 7 | 4 | 06 | 6 | 34.54 |
| 183 | 1200 | 4/3 | 17°54' | 151°18.2' | 75.2 | 05 | 30 | 73.5 | 69.0 | 1016 | 03 | 8 | 3 | 7 | 5 | 06 | 6 | 34.48 |
| 184 | 1500 | 4/3 | 18°17' | 151°32.8' | 74.1 | 05 | 30 | 72.3 | 66.0 | 1015 | 01 | 5 | 1 | 7 | 5 | 06 | 6 | 34.57 |
| 185 | 1800 | 4/3 | 18°39.8' | 151°47' | 74.0 | 04 | 27 | 72.4 | 67.0 | 1018 | 02 | 5 | 1 | 7 | 6 | 04 | 6 | 34.57 |
| 186 | 2100 | 4/3 | 19°03' | 152°01.2' | 74.3 | 06 | 25 | 73.1 | 66.7 | 1019 | 02 | 6 | 1 | 7 | 6 | 04 | 6 | 34.65 |
| 187 | 0000 | 4/4 | 19°29' | 152°14.2' | 74.7 | 06 | 23 | 74.5 | 66.4 | 1017 | 03 | 8,4 | 4 | 7 | 5 | 05 | 6 | 34.65 |
| 188 | 0300 | 4/4 | 19°55' | 152°27' | 74.2 | 08 | 16 | 73.8 | 67.6 | 1017 | 03 | 8 | 7 | 7 | 4 | 04 | 6 | 34.56 |
| 189 | 0600 | 4/4 | 20°21.2 | 152°40' | 73.9 | 05 | 19 | 72.7 | 64.4 | 1019 | 02 | 8 | 2 | 7 | 4 | 04 | 6 | 34.64 |
| 190 | 0900 | 4/4 | 20°47.5' | 152°52' | 74.0 | 05 | 24 | 70.8 | 65.4 | 1020 | 80 | 8 | 5 | 6 | 4 | 04 | 6 | 34.63 |
| 191 | 1200 | 4/4 | 21°13' | 153°04.5' | 74.0 | 08 | 16 | 71.6 | 67.0 | 1018 | 01 | 8 | 2 | 7 | 4 | 05 | 6 | 34.68 |
| 192 | 1500 | 4/4 | 21°38.2' | 153°17' | 74.0 | 09 | 23 | 70.0 | 66.0 | 1018 | 02 | 8 | 2 | 7 | 4 | 07 | 6 | 34.45 |
| 193 | 1705 | 4/4 | 21°46.5' | 153°27' | 73.9 | 09 | 15 | 73.4 | 67.0 | 1019 | 15 | 8 | 2 | 7 | 4 | 07 | 3 | 34.77 |
| 194 | 2215 | 4/4 | 21°46.2' | 153°26.5' | 74.4 | 09 | 09 | 72.7 | 66.7 | 1018 | 80 | 6,8 | 6 | 7 | 4 | 04 | 3 | 34.71 |
| 195 | 0045 | 4/5 | 21°48' | 153°23' | 74.3 | 07 | 16 | 73.5 | 68.9 | 1016 | 15 | 8 | 5 | 7 | 4 | 04 | 3 | 34.65 |
| 196 | 0300 | 4/5 | 22°05.5' | 153°34.5' | 74.2 | 09 | 16 | 73.4 | 67.7 | 1016 | 02 | 8 | 5 | 7 | 3 | 04 | 3 | 34.77 |
| 197 | 0600 | 4/5 | 22°30' | 153°51' | 74.0 | 11 | 14 | 72.4 | 67.0 | 1018 | 18 | 8 | 6 | 7 | 3 | 04 | 3 | 34.73 |
| 198 | 0900 | 4/5 | 22°53' | 154°06' | 71.6 | 09 | 12 | 70.6 | 67.4 | 1019 | 25 | 8 | 3 | 6 | 3 | 04 | 3 | 35.23 |
| 199 | 1200 | 4/5 | 23°18.7' | 154°22.2' | 72.0 | 08 | 16 | 70.5 | 66.4 | 1018 | 01 | 8 | 2 | 7 | 3 | 05 | 3 | 35.14 |
| 200 | 1500 | 4/5 | 23°44' | 154°39' | 71.5 | 10 | 14 | 70.6 | 67.2 | 1017 | 02 | 8 | 2 | 7 | 3 | 07 | 3 | 35.23 |

Table 3.--Summary of observations at bathythermograph lowerings, Hugh M. Smith cruise 51 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 201 | 1800 | 4/5 | 24°10' | 154°52' | 71.4 | 09 | 14 | 69.6 | 66.7 | 1018 | 18 | 0 | 6 | 7 | 3 | 05 | 3 | 35.23 |
| 202 | 2100 | 4/5 | 23°48' | 155°12.2' | 73.0 | 14 | 14 | 72.8 | 68.5 | 1019 | 15 | 8 | 3 | 7 | 3 | 13 | 1 | 34.96 |
| 203 | 0000 | 4/6 | 23°23' | 155°33' | 73.0 | 10 | 08 | 72.8 | 67.7 | 1016 | 02 | 8 | 2 | 7 | 2 | 08 | 1 | 35.10 |
| 204 | 0300 | 4/6 | 22°59' | 155°52.2' | 74.1 | 14 | 13 | 73.9 | 67.5 | 1014 | 03 | 8 | 3 | 7 | 2 | 15 | 1 | 34.80 |
| 205 | 0600 | 4/6 | 22°37' | 156°13.5' | 74.1 | 14 | 14 | 74.2 | 68.4 | 1014 | 00 | 8 | 1 | 7 | 2 | 15 | 1 | 34.72 |
| 206 | 0900 | 4/6 | 22°22.2' | 156°26.8' | 73.7 | 15 | 08 | 74.5 | 67.9 | 1015 | 00 | 8 | 2 | 7 | 2 | 15 | 1 | 34.89 |
| 207 | 1200 | 4/6 | 22°10' | 156°45' | 74.0 | 18 | 11 | 74.3 | 69.3 | 1014 | 03 | 8 | 2 | 7 | 2 | 15 | 1 | 34.80 |
| 208 | 1500 | 4/6 | 21°54.5' | 157°03' | 74.0 | 26 | 14 | 74.0 | 68.0 | 1013 | 01 | 8 | 1 | 7 | 2 | 15 | 1 | 34.82 |
| 209 | 1800 | 4/6 | 21°32.5' | 157°27' | 73.9 | 24 | 08 | 75.0 | 68.5 | 1016 | 02 | 8 | 1 | 8 | 2 | 17 | 1 | 34.80 |

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44
(Recording and coding of data follows U.S. Navy Hydrographic Office, 1956.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 1 | 0020 | 5/1 | 21°48.0' | 158°22.0' | 76.0 | 09 | 18 | 78.2 | 71.4 | 1017 | 02 | 4 | 3 | 7 | 3 | 08 | 1 | 34.75 |
| 2 | 0305 | 5/1 | 22°02.5' | 158°24.0' | 74.7 | 10 | 18 | 75.6 | 71.0 | 1016 | 01 | 1 | 4 | 7 | 3 | 08 | 1 | 35.01 |
| 3 | 0605 | 5/1 | 22°31.0' | 158°24.0' | 74.1 | 11 | 18 | 74.1 | 69.6 | 1017 | 00 | X 1/ | 9 | 7 | 3 | 08 | 1 | 35.02 |
| 4 | 0905 | 5/1 | 22°49.0' | 158°24.5' | 74.1 | 07 | 13 | 74.0 | 69.5 | 1019 | 00 | X | 9 | 7 | 3 | XX | X | 34.98 |
| 5 | 1200 | 5/1 | 23°15.0' | 158°21.0' | 74.2 | 12 | 13 | 74.0 | 69.9 | 1017 | 00 | X | 2 | 7 | 3 | 08 | 1 | 35.00 |
| 6 | 1505 | 5/1 | 23°40.0' | 158°18.5' | 73.9 | 11 | 13 | 74.1 | 69.0 | 1016 | 00 | 8 | 2 | 7 | 3 | 08 | 1 | 35.43 |
| 7 | 1800 | 5/1 | 24°06.0' | 158°15.0' | 73.4 | 12 | 16 | 75.1 | 69.5 | 1018 | 00 | 4 | 7 | 8 | 2 | 08 | 1 | 35.05 |
| 8 | 2100 | 5/1 | 24°05.5' | 158°43.0' | 74.2 | 12 | 14 | 75.0 | 69.6 | 1019 | 02 | 2 | 6 | 8 | 2 | 09 | 1 | 34.97 |
| 9 | 0000 | 5/2 | 24°05.5' | 159°09.5' | 75.0 | 12 | 13 | 75.3 | 69.8 | 1017 | 02 | 2 | 5 | 8 | 3 | 09 | 1 | 34.97 |
| 10 | 0300 | 5/2 | 24°05.0' | 159°37.0' | 75.4 | 12 | 18 | 74.9 | 69.8 | 1016 | 03 | 8 | 6 | 8 | 3 | 10 | 1 | 34.82 |
| 11 | 0600 | 5/2 | 23°50.0' | 159°56.0' | 74.9 | 12 | 14 | 74.5 | 70.0 | 1017 | 02 | 8 | 5 | 8 | 3 | 10 | 1 | 34.94 |
| 12 | 0900 | 5/2 | 23°35.0' | 160°11.5' | 75.0 | 11 | 14 | 74.1 | 69.8 | 1018 | 00 | | | 8 | 3 | XX | X | 35.21 |
| 13 | 1200 | 5/2 | 23°11.0' | 160°27.5' | 75.0 | 13 | 14 | 75.0 | 69.6 | 1017 | 00 | 8 | 2 | 7 | 3 | XX | X | 34.84 |
| 14 | 1500 | 5/2 | 22°49.5' | 160°42.5' | 75.4 | 10 | 13 | 74.5 | 69.5 | 1016 | 02 | 8 | 2 | 7 | 3 | XX | X | 34.74 |
| 15 | 1800 | 5/2 | 22°26.5' | 160°57.5' | 76.0 | 10 | 04 | 75.3 | 69.9 | 1018 | 02 | 1 | 3 | 8 | 2 | 12 | 1 | 34.57 |
| 16 | 1900 | 5/2 | 22°28.0' | 161°05.0' | 76.3 | 10 | 14 | 75.3 | 69.8 | 1018 | 01 | 8 | 2 | 8 | 2 | 12 | 1 | |
| 17 | 2350 | 5/2 | 22°28.0' | 161°05.0' | 77.0 | 10 | 05 | 77.5 | 72.0 | 1017 | 02 | 8 | 4 | 8 | 2 | 10 | 1 | 34.57 |
| 18 | 0150 | 5/3 | 22°26.5' | 160°57.5' | 77.2 | 10 | 05 | 78.2 | 71.5 | 1016 | 02 | 4 | 2 | 8 | 2 | 15 | 1 | 34.58 |
| 19 | 0600 | 5/3 | 21°58.0' | 161°20.0' | 77.5 | 07 | 10 | 76.8 | 70.4 | 1017 | 02 | 8 | 3 | 8 | 2 | 09 | 1 | 34.57 |
| 20 | 0900 | 5/3 | 21°39.0' | 161°34.0' | 77.5 | 08 | 08 | 76.6 | 70.8 | 1018 | 00 | X | X | 8 | 2 | 09 | 1 | 34.45 |
| 21 | 1200 | 5/3 | 21°17.5' | 161°51.5' | 76.9 | 08 | 08 | 76.6 | 71.0 | 1017 | 00 | 8 | 2 | 7 | 2 | 09 | 1 | 34.50 |
| 22 | 1500 | 5/3 | 20°56.0' | 162°09.0' | 77.5 | 08 | 10 | 76.4 | 70.0 | 1017 | 00 | 8 | 2 | 7 | 2 | 09 | 1 | 34.50 |
| 23 | 1800 | 5/3 | 20°34.0' | 162°27.0' | 77.3 | 07 | 11 | 76.3 | 69.9 | 1017 | 02 | 8 | 1 | 8 | 2 | 11 | 1 | 34.58 |
| 24 | 2100 | 5/3 | 20°13.0' | 162°44.0' | 77.9 | 07 | 10 | 78.2 | 71.4 | 1018 | 02 | 8 | 1 | 8 | 2 | 09 | 1 | 34.66 |
| 25 | 0000 | 5/4 | 19°51.0' | 163°01.5' | 78.6 | 07 | 11 | 79.0 | 71.4 | 1017 | 02 | 8 | 1 | 8 | 3 | 12 | 1 | 34.53 |
| 26 | 0300 | 5/4 | 19°42.5' | 162°36.0' | 77.9 | 05 | 12 | 77.7 | 71.7 | 1016 | 02 | 8 | 1 | 8 | 3 | 05 | 1 | 34.51 |
| 27 | 0600 | 5/4 | 19°34.0' | 162°10.0' | 78.0 | 07 | 10 | 77.0 | 71.2 | 1017 | 03 | 8 | 6 | 8 | 3 | 07 | 1 | 34.52 |
| 28 | 0900 | 5/4 | 19°26.0' | 161°49.5' | 78.1 | 07 | 12 | 76.3 | 71.9 | 1018 | 01 | 8 | 3 | 8 | 3 | 07 | 1 | 34.54 |
| 29 | 1200 | 5/4 | 19°18.0' | 161°24.0' | 77.2 | 11 | 09 | 76.9 | 70.2 | 1016 | 03 | 8 | 7 | 7 | 3 | XX | 1 | 34.45 |
| 30 | 1500 | 5/4 | 19°09.5' | 160°59.0' | 77.3 | 04 | 14 | 76.5 | 72.8 | 1015 | 02 | 8 | 7 | 7 | 3 | XX | 1 | 34.41 |
| 31 | 1640 | 5/4 | 19°07.0' | 160°58.5' | 77.5 | 09 | 18 | 75.8 | 68.6 | 1016 | 16 | 8 | 6 | 7 | 3 | 09 | 1 | 34.41 |
| 32 | 2210 | 5/4 | 19°05.0' | 160°57.5' | 77.7 | 09 | 16 | 78.2 | 71.5 | 1017 | 02 | 4 | 5 | 7 | 4 | 10 | 3 | 34.40 |
| 33 | 0005 | 5/5 | 19°05.5' | 160°53.5' | 77.8 | 08 | 16 | 78.8 | 71.1 | 1015 | 01 | 8 | 1 | 8 | 4 | 08 | 3 | 34.52 |
| 34 | 0300 | 5/5 | 19°20.0' | 160°34.0' | 77.5 | 07 | 13 | 78.1 | 71.3 | 1014 | 02 | 8 | 1 | 8 | 4 | 06 | 1 | 34.49 |
| 35 | 0600 | 5/5 | 19°34.0' | 160°12.0' | 77.8 | 08 | 12 | 77.8 | 71.3 | 1016 | 03 | 8 | 4 | 8 | 3 | 08 | 1 | 34.45 |
| 36 | 0900 | 5/5 | 19°47.0' | 159°53.0' | 77.0 | 08 | 10 | 77.8 | 71.8 | 1018 | 00 | X | X | 8 | 3 | 08 | 1 | 34.47 |
| 37 | 1200 | 5/5 | 20°00.0' | 159°31.0' | 77.1 | 10 | 14 | 77.0 | 71.0 | 1016 | 00 | X | 8 | 7 | 4 | XX | 3 | 34.47 |
| 38 | 1500 | 5/5 | 20°12.5' | 159°10.0' | 76.8 | 07 | 20 | 74.1 | 70.4 | 1016 | 00 | X | 8 | 7 | 4 | XX | 3 | 34.48 |
| 39 | 1800 | 5/5 | 20°26' | 158°47.0' | 76.9 | 08 | 14 | 76.2 | 69.9 | 1017 | 01 | 8 | 6 | 8 | 4 | 08 | 3 | 34.57 |
| 40 | 2100 | 5/5 | 20°42.0' | 158°26.0' | 76.0 | 08 | 16 | 76.8 | 69.8 | 1018 | 01 | 8 | 1 | 8 | 4 | 08 | 3 | 34.73 |

1/ X indicates that no observation was recorded.

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, µg at./L. |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|-------------------------------------|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 41 | 0000 | 5/6 | 20°57.5' | 158°08.5' | 77.0 | 07 | 18 | 78.5 | 71.4 | 1017 | 03 | 8 | 4 | 7 | 4 | 06 | 3 | 34.57 |
| 42 | 0025 | 5/7 | 21°24.0' | 157°33.0' | 75.9 | 06 | 19 | 78.0 | 71.5 | 1018 | 00 | 8 | 4 | 7 | 4 | 06 | 3 | 34.75 |
| 43 | 0300 | 5/7 | 21°40.0' | 157°23.0' | 74.6 | 07 | 18 | 76.8 | 70.8 | 1017 | 03 | 8 | 5 | 7 | 4 | 06 | 3 | 34.95 |
| 44 | 0600 | 5/7 | 21°57.5' | 157°11.0' | 74.3 | 08 | 25 | 75.6 | 71.0 | 1019 | 01 | 8 | 2 | 7 | 4 | 06 | 3 | 35.00 |
| 45 | 0900 | 5/7 | 22°16.0' | 156°55.0' | 74.5 | 08 | 26 | 75.4 | 71.0 | 1020 | 02 | 8 | 2 | 7 | 4 | 06 | 3 | 34.95 |
| 46 | 1205 | 5/7 | 22°31.0' | 156°38.0' | 74.4 | 08 | 22 | 75.6 | 70.0 | 1020 | 02 | 8 | 2 | 7 | 4 | 06 | 3 | 34.92 |
| 47 | 1505 | 5/7 | 22°46.0' | 156°22.5' | 74.7 | 08 | 24 | 75.3 | 70.1 | 1019 | 80 | 6 | 6 | 7 | 4 | 06 | 3 | 34.95 |
| 48 | 1800 | 5/7 | 23°01.5' | 156°05.5' | 73.5 | 07 | 23 | 73.2 | 69.3 | 1021 | 50 | 0 | 7 | 7 | 4 | 06 | 3 | 35.10 |
| 49 | 2100 | 5/7 | 23°19.0' | 155°50.0' | 72.9 | 06 | 19 | 74.4 | 68.0 | 1022 | 01 | 8 | 5 | 8 | 4 | 06 | 4 | 35.18 |
| 50 | 0000 | 5/8 | 23°27.0' | 155°30.0' | 74.7 | 06 | 22 | 77.1 | 69.3 | 1021 | 02 | 8 | 3 | 7 | 5 | 07 | 4 | 34.91 |
| 51 | 0300 | 5/8 | 23°28.0' | 155°07.0' | 75.0 | 06 | 22 | 75.4 | 68.3 | 1021 | 02 | 8 | 3 | 7 | 5 | 07 | 4 | 34.88 |
| 52 | 0600 | 5/8 | 23°27.0' | 154°45.0' | 75.0 | 05 | 22 | 73.2 | 69.0 | 1022 | 02 | 8 | 3 | 7 | 4 | 07 | 4 | 34.79 |
| 53 | 0900 | 5/8 | 23°25.0' | 154°25.0' | 75.0 | 05 | 24 | 73.2 | 68.4 | 1023 | 00 | X | X | 7 | 5 | 07 | 4 | 34.76 |
| 54 | 1200 | 5/8 | 23°26.0' | 154°04.0' | 74.8 | 06 | 21 | 75.4 | 69.2 | 1022 | 02 | 8 | 2 | 7 | 5 | 07 | 4 | 34.76 |
| 55 | 1500 | 5/8 | 23°40.0' | 153°47.5' | 75.0 | 07 | 24 | 74.5 | 68.8 | 1022 | 15 | 6 | 6 | 7 | 5 | 07 | 4 | 34.78 |
| 56 | 1800 | 5/8 | 23°55.0' | 153°29.5' | 74.6 | 07 | 22 | 74.4 | 68.7 | 1023 | 15 | 8 | 4 | 7 | 4 | 06 | 4 | 34.77 |
| 57 | 2100 | 5/8 | 24°10.5' | 153°14.0' | 73.5 | 06 | 22 | 72.0 | 67.0 | 1024 | 15 | 6 | 6 | 7 | 5 | 07 | 4 | 35.10 |
| 58 | 0000 | 5/9 | 24°30.0' | 152°55.5' | 74.1 | 06 | 18 | 73.7 | 65.4 | 1023 | 02 | 8 | 4 | 7 | 6 | 07 | 4 | 35.04 |
| 59 | 0300 | 5/9 | 24°30.0' | 152°30.0' | 74.2 | 05 | 22 | 73.0 | 67.5 | 1021 | 02 | 8 | 4 | 7 | 5 | 07 | 4 | 34.85 |
| 60 | 0600 | 5/9 | 24°30.5' | 152°04.0' | 72.9 | 05 | 24 | 69.9 | 65.2 | 1022 | 00 | X | X | 7 | 5 | 07 | 4 | 35.07 |
| 61 | 0900 | 5/9 | 24°12.5' | 151°52.0' | 72.9 | 04 | 21 | 70.2 | 62.2 | 1023 | 00 | X | X | 7 | 5 | XX | X | 35.09 |
| 62 | 1200 | 5/9 | 23°49.5' | 151°42.0' | 73.0 | 04 | 22 | 69.7 | 59.3 | 1021 | 00 | 8 | 5 | 7 | 5 | XX | X | 35.04 |
| 63 | 1500 | 5/9 | 23°28.0' | 151°53.5' | 73.9 | 06 | 18 | 69.8 | 59.0 | 1020 | 02 | 8 | 2 | 7 | 5 | 08 | 4 | 34.83 |
| 64 | 1800 | 5/9 | 23°02.5' | 151°42.0' | 74.0 | 04 | 14 | 71.4 | 63.5 | 1021 | 02 | 8 | 2 | 7 | 4 | 07 | 3 | 34.84 |
| 65 | 2100 | 5/9 | 22°40.0' | 151°27.0' | 73.0 | 05 | 18 | 71.9 | 64.0 | 1021 | 03 | 6 | 6 | 7 | 4 | 06 | 1 | 35.12 |
| 66 | 0000 | 5/10 | 22°21.5' | 151°10.5' | 73.6 | 07 | 15 | 71.4 | 65.7 | 1019 | 15 | 6 | 7 | 7 | 5 | 06 | 1 | 35.00 |
| 67 | 0300 | 5/10 | 22°02.0' | 150°53.0' | 73.5 | 08 | 13 | 74.1 | 66.8 | 1018 | 15 | 6 | 6 | 7 | 4 | 06 | 1 | 35.01 |
| 68 | 0600 | 5/10 | 21°42.0' | 150°35.0' | 74.1 | 10 | 10 | 72.0 | 65.6 | 1018 | 00 | X | X | 7 | 4 | 06 | 1 | 34.90 |
| 69 | 0900 | 5/10 | 21°24.0' | 150°19.0' | 74.5 | 06 | 14 | 72.5 | 66.5 | 1019 | 00 | X | X | 7 | 4 | 06 | 1 | 34.83 |
| 70 | 1200 | 5/10 | 21°03.5' | 150°01.0' | 74.6 | 04 | 15 | 72.7 | 67.8 | 1017 | 00 | 8 | 1 | 7 | 4 | 06 | 1 | 34.80 |
| 71 | 1500 | 5/10 | 20°43.0' | 149°42.5' | 74.2 | 05 | 12 | 73.2 | 65.5 | 1016 | 03 | 3 | 5 | 7 | 4 | 05 | 1 | 34.81 |
| 72 | 1800 | 5/10 | 20°24.0' | 149°49.0' | 74.5 | 05 | 15 | 73.4 | 67.6 | 1017 | 15 | 6 | 7 | 7 | 3 | 05 | 1 | 34.81 |
| 73 | 2100 | 5/10 | 20°05.0' | 150°07.5' | 75.2 | 05 | 14 | 74.2 | 67.6 | 1017 | 15 | 6 | 7 | 7 | 3 | 05 | 1 | 34.73 |
| 74 | 0000 | 5/11 | 19°40.0' | 150°20.0' | 75.8 | 07 | 16 | 74.8 | 67.9 | 1016 | 15 | 6 | 6 | 7 | 3 | 07 | 1 | 34.73 |
| 75 | 0300 | 5/11 | 19°13.0' | 150°33.0' | 76.0 | 05 | 17 | 74.3 | 68.0 | 1014 | 15 | 6 | 6 | 7 | 3 | 06 | 1 | 34.66 |
| 76 | 0600 | 5/11 | 18°45.0' | 150°45.5' | 75.8 | 05 | 15 | 73.7 | 66.6 | 1015 | 01 | 8 | 1 | 7 | 3 | 06 | 1 | 34.72 |
| 77 | 0900 | 5/11 | 18°23.0' | 150°56.5' | 75.7 | 07 | 15 | 74.0 | 68.3 | 1016 | 00 | X | X | 7 | 3 | 06 | 1 | 34.71 |
| 78 | 1200 | 5/11 | 17°55.5' | 151°09.5' | 75.7 | 05 | 16 | 74.7 | 68.9 | 1014 | 00 | X | 6 | 7 | 3 | XX | 1 | 34.64 |
| 79 | 1500 | 5/11 | 17°28.5' | 151°22.0' | 75.5 | 03 | 20 | 73.4 | 67.5 | 1012 | 15 | 4 | 6 | 7 | 3 | 05 | 1 | 34.69 |
| 80 | 1640 | 5/11 | 17°19.0' | 151°30.0' | 75.7 | 05 | 14 | 73.7 | 65.9 | 1013 | 15 | 8 | 6 | 7 | 3 | 04 | 1 | 34.66 |

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44 (con.)

| Ser. No. | Time Date, 1959 (GCT) | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) | |
|----------|-----------------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|-------|----------------|--|-------|
| | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Am't. | | | |
| 81 | 2200 | 5/11 | 17°13.0' | 151°30.0' | 76.0 | 02 | 16 | 75.8 | 68.9 | 1013 | 02 | 4 | 6 | 8 | 4 | 36 | 1 | 34.71 |
| 82 | 2355 | 5/11 | 17°17.5' | 151°25.5' | 76.0 | 04 | 16 | 76.5 | 69.5 | 1012 | 02 | 1 | 6 | 8 | 3 | 05 | 1 | 34.39 |
| 83 | 0300 | 5/12 | 16°53.5' | 151°36.0' | 76.7 | 04 | 16 | 78.1 | 69.5 | 1012 | 15 | 8 | 6 | 8 | 3 | 07 | 1 | 34.43 |
| 84 | 0600 | 5/12 | 16°31.0' | 151°49.5' | 76.8 | 03 | 19 | 75.2 | 67.8 | 1013 | 01 | X | 5 | 7 | 3 | 04 | 1 | 34.67 |
| 85 | 0900 | 5/12 | 16°12.5' | 152°02.0' | 77.1 | 05 | 19 | 75.0 | 68.0 | 1014 | 00 | X | X | 7 | 3 | 04 | 1 | 34.45 |
| 86 | 1200 | 5/12 | 15°50.0' | 152°18.5' | 77.4 | 05 | 19 | 75.7 | 68.7 | 1012 | 00 | 8 | 6 | 7 | 3 | 04 | 1 | 34.44 |
| 87 | 1500 | 5/12 | 16°12.0' | 152°29.0' | 76.7 | 07 | 18 | 77.3 | 69.2 | 1012 | 02 | 8 | 7 | 7 | 3 | 04 | 1 | 34.52 |
| 88 | 1800 | 5/12 | 16°34.0' | 152°39.0' | 76.5 | 04 | 17 | 74.8 | 67.2 | 1013 | 01 | 4 | 6 | 7 | 3 | 03 | 1 | 34.54 |
| 89 | 2100 | 5/12 | 16°57.0' | 152°50.0' | 76.3 | 07 | 18 | 74.8 | 67.0 | 1014 | 01 | 8 | 2 | 7 | 3 | 03 | 1 | 34.61 |
| 90 | 0000 | 5/13 | 17°21.5' | 153°00.0' | 76.5 | 05 | 15 | 75.6 | 68.8 | 1013 | 01 | 8 | 1 | 8 | 3 | 04 | 1 | 34.61 |
| 91 | 0300 | 5/13 | 17°46.0' | 153°10.0' | 76.6 | 07 | 19 | 77.7 | 70.1 | 1013 | 02 | 8 | 2 | 8 | 5 | 05 | 3 | 34.61 |
| 92 | 0600 | 5/13 | 18°11.0' | 153°19.0' | 75.4 | 06 | 16 | 74.6 | 68.8 | 1015 | 03 | 8 | 5 | 8 | 4 | 05 | 3 | 34.72 |
| 93 | 0900 | 5/13 | 18°27.0' | 153°23.0' | 75.9 | 07 | 09 | 73.4 | 68.5 | 1016 | 52 | X | X | 6 | 4 | XX | X | 34.70 |
| 94 | 1200 | 5/13 | 18°51.0' | 153°30.5' | 76.0 | 10 | 12 | 74.6 | 68.5 | 1016 | 00 | 8 | 2 | 6 | 3 | 04 | 1 | 34.56 |
| 95 | 1500 | 5/13 | 19°14.0' | 153°38.0' | 75.8 | 07 | 14 | 76.6 | 68.7 | 1016 | 15 | 6 | 4 | 7 | 3 | 03 | 1 | 34.59 |
| 96 | 1800 | 5/13 | 19°37.0' | 153°45.5' | 75.4 | 08 | 13 | 75.2 | 67.0 | 1018 | 15 | 8 | 5 | 7 | 3 | 05 | 1 | 34.58 |
| 97 | 2100 | 5/13 | 20°01.0' | 153°53.5' | 75.8 | 07 | 15 | 73.5 | 68.6 | 1018 | 01 | 4 | 5 | 7 | 3 | 04 | 1 | 34.66 |
| 98 | 0000 | 5/14 | 20°24.5' | 154°03.0' | 75.8 | 06 | 16 | 74.7 | 70.2 | 1017 | 03 | 4 | 6 | 7 | 3 | 04 | 1 | 34.70 |
| 99 | 0300 | 5/14 | 20°45.0' | 154°12.0' | 75.7 | 07 | 15 | 75.4 | 69.6 | 1017 | 02 | 4 | 6 | 7 | 3 | 05 | 1 | 34.68 |
| 100 | 0600 | 5/14 | 21°06.0' | 154°21.5' | 74.8 | 07 | 15 | 74.0 | 67.8 | 1019 | 02 | 4 | 6 | 7 | 3 | 05 | 1 | 34.75 |
| 101 | 1000 | 5/14 | 21°29.5' | 154°21.0' | 74.5 | 06 | 22 | 73.6 | 67.8 | 1019 | 01 | X | 4 | 7 | 3 | 05 | 1 | 34.77 |
| 102 | 1400 | 5/14 | 21°57.0' | 154°22.5' | 74.3 | 08 | 21 | 73.4 | 68.5 | 1019 | 02 | X | 2 | 7 | 3 | 06 | 1 | 34.82 |
| 103 | 1837 | 5/14 | 22°23.0' | 154°29.0' | 74.9 | 07 | 23 | 73.9 | 68.4 | 1021 | 15 | 6 | 7 | 6 | 3 | 07 | 1 | 34.75 |
| 104 | 2350 | 5/14 | 22°29.0' | 154°25.0' | 75.2 | 08 | 15 | 75.0 | 69.2 | 1020 | 02 | 8 | 2 | 7 | 4 | 06 | 3 | 34.74 |
| 105 | 0145 | 5/15 | 22°31.5' | 154°17.5' | 75.0 | 09 | 16 | 75.9 | 70.4 | 1019 | 25 | 8 | 3 | 7 | 4 | 06 | 3 | 34.75 |
| 106 | 0600 | 5/15 | 23°01.0' | 154°22.0' | 75.0 | 09 | 16 | 74.4 | 68.8 | 1020 | 15 | 8 | 5 | 7 | 3 | 06 | 1 | 34.75 |
| 107 | 1000 | 5/15 | 23°23.0' | 154°22.0' | 75.0 | 09 | 18 | 73.8 | 69.4 | 1021 | 00 | X | X | 7 | 3 | 06 | 1 | 34.77 |
| 108 | 1400 | 5/15 | 23°48.0' | 154°20.5' | 75.0 | 07 | 15 | 73.0 | 69.3 | 1020 | 00 | 8 | 4 | 6 | 3 | 06 | 1 | 34.75 |
| 109 | 1650 | 5/15 | 24°01.0' | 154°26.5' | 74.8 | 07 | 20 | 72.6 | 68.6 | 1021 | 25 | 6 | 6 | 7 | 4 | 07 | 3 | 34.75 |
| 110 | 2155 | 5/15 | 24°02.5' | 154°19.5' | 75.0 | 08 | 18 | 74.0 | 68.5 | 1021 | 02 | 8 | 4 | 7 | 4 | 08 | 3 | 34.76 |
| 111 | 2335 | 5/15 | 24°03.0' | 154°13.5' | 75.0 | 09 | 16 | 74.2 | 68.6 | 1020 | 02 | 8 | 4 | 7 | 4 | 10 | 3 | 34.77 |
| 112 | 0300 | 5/16 | 23°35.5' | 154°26.0' | 75.0 | 09 | 22 | 74.5 | 69.0 | 1019 | 02 | 8 | 2 | 7 | 4 | 10 | 3 | 34.76 |
| 113 | 0600 | 5/16 | 23°11.0' | 154°38.0' | 74.9 | 09 | 20 | 74.3 | 68.8 | 1020 | 02 | 8 | 2 | 7 | 4 | 09 | 3 | 34.77 |
| 114 | 0900 | 5/16 | 22°53.5' | 154°46.5' | 75.2 | 09 | 20 | 74.0 | 69.3 | 1020 | 03 | 8 | 4 | 7 | 3 | 09 | 3 | 34.74 |
| 115 | 1205 | 5/16 | 22°32.5' | 154°58.0' | 75.5 | 08 | 20 | 74.5 | 70.0 | 1019 | 02 | 8 | 4 | 7 | 3 | 09 | 3 | 34.66 |
| 116 | 1500 | 5/16 | 22°12.0' | 155°10.0' | 74.5 | 08 | 19 | 74.3 | 69.3 | 1018 | 02 | 8 | 3 | 7 | 3 | 10 | 3 | 34.84 |
| 117 | 1800 | 5/16 | 21°47.0' | 155°24.0' | 73.5 | 11 | 21 | 72.8 | 68.7 | 1019 | 81 | 6 | 8 | 6 | 3 | 09 | 3 | 35.18 |
| 118 | 2100 | 5/16 | 21°18.5' | 155°33.5' | 74.5 | 09 | 16 | 75.1 | 70.0 | 1019 | 01 | 8 | 2 | 7 | 3 | 09 | 3 | 35.03 |
| 119 | 0000 | 5/17 | 20°52.0' | 155°46.0' | 74.8 | 09 | 17 | 75.3 | 70.6 | 1018 | 15 | 6 | 2 | 7 | 3 | 10 | 3 | 34.97 |
| 120 | 0300 | 5/17 | 20°25.0' | 155°58.5' | 76.3 | 08 | 21 | 76.7 | 71.5 | 1016 | 02 | 4 | 2 | 7 | 4 | 07 | 3 | 34.52 |

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 121 | 0600 | 5/17 | 20°03.0' | 156°14.5' | 77.0 | 04 | 21 | 76.3 | 68.8 | 1016 | 03 | 4 | 6 | 7 | 3 | 04 | 1 | 34.50 |
| 122 | 0900 | 5/17 | 19°44.0' | 156°25.7' | 76.9 | 09 | 15 | 77.8 | 69.5 | 1017 | 02 | 4 | 6 | 7 | 3 | XX | 1 | 34.52 |
| 123 | 1200 | 5/17 | 19°21.0' | 156°42.0' | 76.6 | 32 | 03 | 77.5 | 70.9 | 1016 | 02 | 4 | 5 | 7 | 3 | XX | 1 | 34.70 |
| 124 | 1500 | 5/17 | 18°57.0' | 157°00.0' | 76.8 | 29 | 04 | 77.2 | 70.5 | 1015 | 02 | 4 | 6 | 7 | 3 | XX | 1 | 34.82 |
| 125 | 1800 | 5/17 | 18°33.5' | 157°14.5' | 76.5 | 10 | 18 | 77.8 | 71.2 | 1017 | 02 | 4 | 6 | 7 | 3 | 10 | 4 | 34.58 |
| 126 | 2100 | 5/17 | 18°09.0' | 157°32.5' | 77.2 | 10 | 20 | 76.8 | 72.2 | 1017 | 02 | 3 | 6 | 7 | 4 | 09 | 4 | 34.46 |
| 127 | 0000 | 5/18 | 17°41.0' | 157°51.5' | 77.3 | 10 | 22 | 77.7 | 73.0 | 1015 | 15 | 3 | 7 | 7 | 4 | 09 | 4 | 34.47 |
| 128 | 0300 | 5/18 | 17°57.5' | 157°57.0' | 77.3 | 09 | 18 | 77.5 | 73.5 | 1015 | 02 | 4 | 5 | 7 | 5 | 08 | 4 | 34.50 |
| 129 | 0600 | 5/18 | 18°23.0' | 157°59.5' | 76.9 | 10 | 18 | 76.6 | 72.3 | 1016 | 01 | 4 | 3 | 7 | 3 | 07 | 3 | 34.49 |
| 130 | 0900 | 5/18 | 18°42.0' | 157°57.0' | 77.2 | 10 | 19 | 77.0 | 72.5 | 1018 | 00 | X | X | 7 | 4 | XX | X | 34.46 |
| 131 | 1200 | 5/18 | 19°07.0' | 157°56.0' | 76.8 | 10 | 13 | 76.8 | 71.9 | 1017 | 00 | 4 | 6 | 7 | 3 | 07 | 1 | 34.50 |
| 132 | 1500 | 5/18 | 19°34.0' | 157°56.5' | 76.8 | 09 | 03 | 74.8 | 72.5 | 1016 | 15 | 6 | 4 | 7 | 3 | 07 | 1 | 34.54 |
| 133 | 1800 | 5/18 | 20°02.5' | 157°57.5' | 76.8 | 10 | 14 | 76.0 | 72.4 | 1018 | 15 | 6 | 5 | 7 | 2 | 08 | 1 | 34.55 |
| 134 | 2100 | 5/18 | 20°32.0' | 157°55.5' | 77.2 | 04 | 10 | 76.0 | 72.0 | 1018 | 02 | 6 | 5 | 7 | 3 | 07 | 1 | 34.48 |
| 135 | 0000 | 5/19 | 20°54.0' | 157°57.0' | 77.8 | 05 | 07 | 77.8 | 72.4 | 1017 | 02 | 8 | 3 | 7 | 3 | 05 | 1 | 34.58 |
| 136 | 2100 | 5/20 | 21°04.0' | 158°05.0' | 77.0 | 00 | 00 | 77.2 | 72.0 | 1016 | 00 | 8 | 6 | 7 | 0 | 15 | 1 | 34.66 |
| 137 | 0010 | 5/21 | 21°00.0' | 158°14.0' | 77.9 | 20 | 07 | 77.0 | 72.0 | 1015 | 02 | 4 | 7 | 7 | 1 | 18 | 1 | 34.73 |
| 138 | 0300 | 5/21 | 20°41.5' | 158°28.0' | 77.6 | 20 | 06 | 77.1 | 72.0 | 1014 | 02 | 8 | 4 | 7 | 1 | 15 | 1 | 34.73 |
| 139 | 0600 | 5/21 | 20°24.0' | 158°43.5' | 77.3 | 17 | 06 | 76.4 | 71.8 | 1015 | 03 | 8 | 6 | 7 | 1 | 17 | 1 | 34.58 |
| 140 | 0900 | 5/21 | 20°05.0' | 158°52.5' | 77.2 | 20 | 05 | 76.0 | 71.7 | 1016 | 01 | 4 | 4 | 7 | 1 | 17 | 1 | 34.53 |
| 141 | 1200 | 5/21 | 19°45.0' | 159°06.5' | 77.8 | 19 | 06 | 76.1 | 71.0 | 1015 | 02 | 4 | 2 | 7 | 1 | 16 | 1 | 34.32 |
| 142 | 1500 | 5/21 | 19°23.5' | 159°21.5' | 77.7 | 18 | 05 | 76.0 | 71.0 | 1014 | 15 | 4 | 2 | 7 | 1 | 16 | 1 | 34.32 |
| 143 | 1800 | 5/21 | 19°08.5' | 159°40.0' | 78.2 | 13 | 07 | 76.8 | 71.0 | 1015 | 02 | 8 | 2 | 7 | 1 | 13 | 1 | 34.32 |
| 144 | 2100 | 5/21 | 18°53.0' | 159°59.0' | 79.2 | 08 | 03 | 77.0 | 71.0 | 1016 | 02 | 8 | 2 | 8 | 1 | 13 | 1 | 34.30 |
| 145 | 0000 | 5/22 | 18°37.0' | 160°20.0' | 80.6 | 07 | 04 | 79.1 | 71.2 | 1015 | 02 | 8 | 2 | 8 | 1 | 14 | 1 | 34.41 |
| 146 | 0300 | 5/22 | 18°20.0' | 160°41.5' | 79.5 | 12 | 07 | 77.7 | 71.7 | 1014 | 02 | 8 | 1 | 8 | 1 | 14 | 1 | 34.39 |
| 147 | 0600 | 5/22 | 18°03.0' | 161°03.0' | 78.9 | 13 | 06 | 77.5 | 71.8 | 1014 | 02 | 8 | 1 | 8 | 1 | 14 | 2 | 34.34 |
| 148 | 0900 | 5/22 | 18°22.5' | 161°01.0' | 78.4 | 07 | 06 | 77.2 | 71.8 | 1016 | 02 | 8 | 1 | 8 | 1 | 14 | 2 | 34.57 |
| 149 | 1200 | 5/22 | 18°45.0' | 161°03.0' | 78.0 | 00 | 11 | 74.9 | 71.8 | 1015 | 02 | 8 | 2 | 8 | 1 | 33 | 2 | 34.57 |
| 150 | 1500 | 5/22 | 19°07.5' | 161°04.0' | 77.5 | 03 | 17 | 75.0 | 72.0 | 1014 | 15 | 6 | 6 | 7 | 3 | 33 | 3 | 34.52 |
| 151 | 1800 | 5/22 | 19°29.5' | 161°05.0' | 77.2 | 02 | 19 | 74.0 | 70.0 | 1015 | 15 | 6 | 8 | 6 | 3 | 35 | 3 | 34.52 |
| 152 | 2100 | 5/22 | 19°51.5' | 161°06.5' | 78.0 | 02 | 19 | 75.0 | 68.0 | 1016 | 02 | 6 | 8 | 6 | 3 | 36 | 3 | 34.37 |
| 153 | 0000 | 5/23 | 20°17.5' | 161°07.0' | 77.8 | 04 | 17 | 75.8 | 67.8 | 1015 | 02 | 4 | 6 | 6 | 3 | 02 | 3 | 34.41 |
| 154 | 0300 | 5/23 | 20°41.0' | 161°06.0' | 77.9 | 04 | 18 | 75.0 | 66.7 | 1014 | 02 | 6 | 7 | 6 | 3 | 02 | 3 | 34.34 |
| 155 | 0600 | 5/23 | 21°05.0' | 161°06.0' | 77.4 | 05 | 17 | 74.2 | 65.8 | 1015 | 01 | 6 | 6 | 7 | 3 | 36 | 3 | 34.35 |
| 156 | 0900 | 5/23 | 21°27.0' | 161°03.0' | 77.0 | 05 | 13 | 72.5 | 63.6 | 1017 | 00 | X | X | 7 | 3 | 36 | 3 | 34.55 |
| 157 | 1200 | 5/23 | 21°49.5' | 161°03.0' | 75.4 | 03 | 10 | 73.0 | 64.5 | 1016 | 00 | 4 | 6 | 7 | 3 | 02 | 3 | 34.92 |
| 158 | 1500 | 5/23 | 22°12.5' | 161°03.5' | 75.4 | 00 | 06 | 72.0 | 61.9 | 1015 | 00 | 4 | 6 | 7 | 2 | 02 | 1 | 34.89 |
| 159 | 2105 | 5/23 | 22°28.0' | 160°37.0' | 75.9 | 02 | 08 | 78.0 | 63.2 | 1017 | 15 | 6 | 7 | 7 | 2 | 36 | 1 | 34.84 |
| 160 | 0000 | 5/24 | 22°49.0' | 160°37.0' | 75.4 | 03 | 12 | 73.5 | 64.7 | 1016 | 02 | 6 | 6 | 7 | 2 | 36 | 1 | 34.88 |

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro- meter (mb.) | Wea- ther | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-------------------|-----------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 161 | 0300 | 5/24 | 22°49.0' | 161°03.0' | 75.9 | 03 | 12 | 74.0 | 67.0 | 1015 | 02 | 8 | 5 | 7 | 3 | 36 | 4 | 34.89 |
| 162 | 0600 | 5/24 | 23°07.0' | 161°10.0' | 76.2 | 04 | 11 | 72.0 | 64.6 | 1016 | 15 | 6 | 7 | 7 | 3 | 02 | 4 | 34.76 |
| 163 | 0900 | 5/24 | 23°27.0' | 161°05.2' | 75.6 | 03 | 10 | 70.2 | 65.0 | 1017 | 01 | 4 | 4 | 7 | 3 | 02 | 4 | 34.88 |
| 164 | 1200 | 5/24 | 23°54.5' | 161°06.0' | 74.8 | 32 | 08 | 69.0 | 64.5 | 1016 | 25 | 8 | 2 | 7 | 3 | 02 | 4 | 34.99 |
| 165 | 1500 | 5/24 | 24°22.0' | 161°07.0' | 74.8 | 32 | 08 | 67.0 | 63.4 | 1016 | 15 | 6 | 7 | 6 | 2 | 02 | 4 | 34.82 |
| 166 | 1800 | 5/24 | 24°49.0' | 161°08.0' | 74.1 | 03 | 07 | 68.0 | 63.5 | 1017 | 15 | 6 | 7 | 6 | 2 | 01 | 1 | 34.96 |
| 167 | 2100 | 5/24 | 24°37.5' | 160°48.0' | 74.0 | 06 | 05 | 70.6 | 64.3 | 1017 | 01 | 8 | 2 | 7 | 2 | 01 | 1 | 35.11 |
| 168 | 0000 | 5/25 | 24°23.0' | 160°28.0' | 76.1 | 06 | 06 | 72.0 | 64.7 | 1017 | 02 | 8 | 2 | 7 | 2 | 01 | 4 | 34.83 |
| 169 | 0300 | 5/25 | 24°07.0' | 160°04.5' | 75.9 | 05 | 08 | 72.5 | 65.5 | 1016 | 15 | 8 | 5 | 7 | 2 | 02 | 4 | 34.72 |
| 170 | 0600 | 5/25 | 23°49.0' | 159°42.0' | 76.0 | 07 | 09 | 72.3 | 63.8 | 1017 | 03 | 6 | 7 | 7 | 2 | 02 | 1 | 34.68 |
| 171 | 0900 | 5/25 | 23°31.0' | 159°25.0' | 74.4 | 11 | 08 | 72.2 | 64.0 | 1018 | 01 | 6 | 2 | 7 | 2 | 02 | 1 | 35.09 |
| 172 | 1200 | 5/25 | 23°10.0' | 159°03.0' | 75.2 | 10 | 10 | 75.2 | 66.5 | 1016 | 00 | 4 | 7 | 6 | 2 | XX | 1 | 34.86 |
| 173 | 1500 | 5/25 | 22°49.0' | 158°40.0' | 74.8 | 09 | 13 | 73.4 | 66.7 | 1016 | 00 | 4 | 6 | 6 | 2 | 09 | 1 | 35.06 |
| 174 | 1800 | 5/25 | 22°29.0' | 158°19.5' | 74.4 | 07 | 12 | 73.0 | 67.4 | 1017 | 25 | 6 | 7 | 7 | 3 | 09 | 1 | 35.05 |
| 175 | 2105 | 5/25 | 22°09.0' | 158°02.5' | 75.2 | 08 | 11 | 75.0 | 70.2 | 1017 | 01 | 8 | 5 | 7 | 2 | 09 | 1 | 35.07 |
| 176 | 0000 | 5/26 | 21°52.5' | 157°55.5' | 76.0 | 09 | 10 | 76.0 | 71.6 | 1016 | 02 | 8 | 2 | 7 | 2 | 10 | 1 | 34.87 |
| 177 | 0300 | 5/27 | 21°48.0' | 157°21.0' | 76.8 | 12 | 15 | 76.2 | 72.3 | 1014 | 02 | 4 | 6 | 8 | 3 | 11 | 1 | 34.67 |
| 178 | 0600 | 5/27 | 22°02.5' | 156°56.5' | 75.1 | 12 | 13 | 75.2 | 71.6 | 1016 | 01 | 6 | 5 | 8 | 3 | 11 | 1 | 35.13 |
| 179 | 0900 | 5/27 | 22°15.0' | 156°36.0' | 75.3 | 13 | 12 | 75.0 | 71.2 | 1018 | 00 | X | X | 7 | 3 | 11 | 1 | 34.92 |
| 180 | 1200 | 5/27 | 22°33.0' | 156°12.5' | 75.1 | 14 | 17 | 74.9 | 70.8 | 1016 | 00 | 4 | 2 | 7 | 3 | 12 | 1 | 35.07 |
| 181 | 1500 | 5/27 | 22°51.0' | 155°49.0' | 75.1 | 15 | 14 | 74.9 | 70.0 | 1017 | 00 | 1 | 4 | 7 | 3 | 12 | 1 | 35.05 |
| 182 | 1800 | 5/27 | 23°12.0' | 155°27.0' | 76.2 | 14 | 09 | 75.8 | 70.0 | 1018 | 03 | 1 | 7 | 7 | 2 | 12 | 1 | 34.75 |
| 183 | 2100 | 5/27 | 23°33.0' | 155°03.0' | 76.2 | 13 | 11 | 75.9 | 70.7 | 1019 | 02 | 8 | 7 | 7 | 2 | 12 | 1 | 34.78 |
| 184 | 0000 | 5/28 | 23°49.0' | 154°38.0' | 76.6 | 13 | 12 | 75.9 | 70.0 | 1017 | 02 | 8 | 6 | 7 | 2 | 11 | 1 | 34.82 |
| 185 | 0300 | 5/28 | 24°06.0' | 154°13.0' | 76.4 | 11 | 12 | 75.6 | 69.1 | 1017 | 02 | 5 | 6 | 7 | 2 | 11 | 1 | 34.78 |
| 186 | 0600 | 5/28 | 24°26.0' | 153°44.0' | 75.0 | 12 | 11 | 74.8 | 68.5 | 1019 | 03 | 6 | 6 | 7 | 2 | 11 | 1 | 35.05 |
| 187 | 0900 | 5/28 | 24°38.0' | 153°21.0' | 75.0 | 12 | 11 | 74.2 | 69.0 | 1020 | 00 | X | X | 7 | 2 | 11 | 1 | 34.92 |
| 188 | 1200 | 5/28 | 24°51.0' | 152°57.0' | 74.9 | 12 | 10 | 73.5 | 68.9 | 1018 | 00 | 8 | 2 | 7 | 2 | 11 | 1 | 35.08 |
| 189 | 1500 | 5/28 | 24°26.5' | 152°56.5' | 75.2 | 13 | 12 | 73.7 | 69.0 | 1018 | 00 | 2 | 2 | 7 | 2 | 12 | 1 | 34.81 |
| 190 | 1800 | 5/28 | 24°00.0' | 152°56.0' | 76.0 | 11 | 10 | 74.5 | 69.2 | 1019 | 03 | 2 | 7 | 7 | 2 | 13 | 1 | 34.81 |
| 191 | 2100 | 5/28 | 23°32.5' | 152°52.5' | 75.9 | 11 | 10 | 75.4 | 69.7 | 1019 | 02 | 2 | 7 | 7 | 2 | 12 | 1 | 34.72 |
| 192 | 0000 | 5/29 | 23°02.5' | 152°48.0' | 76.0 | 12 | 12 | 75.6 | 70.0 | 1018 | 15 | 2 | 7 | 7 | 3 | 13 | 1 | 34.75 |
| 193 | 0300 | 5/29 | 22°32.0' | 152°44.0' | 75.8 | 12 | 10 | 75.4 | 70.0 | 1018 | 02 | 2 | 2 | 7 | 3 | 13 | 1 | 34.82 |
| 194 | 0600 | 5/29 | 22°01.0' | 152°40.0' | 75.2 | 14 | 09 | 75.0 | 69.0 | 1019 | 01 | X | 2 | 7 | 3 | 11 | 1 | 34.99 |
| 195 | 0900 | 5/29 | 21°47.0' | 152°39.0' | 75.1 | 14 | 09 | 75.0 | 70.4 | 1019 | 00 | X | X | 7 | 3 | 11 | 1 | 34.99 |
| 196 | 1200 | 5/29 | 21°18.0' | 152°44.0' | 75.7 | 08 | 17 | 75.1 | 70.7 | 1018 | 00 | X | 7 | 6 | 3 | 09 | 1 | 34.83 |
| 197 | 1500 | 5/29 | 20°48.5' | 152°49.0' | 76.6 | 10 | 21 | 74.1 | 71.1 | 1016 | 25 | 6 | 6 | 7 | 4 | 09 | 1 | 34.75 |
| 198 | 1800 | 5/29 | 20°19.0' | 152°53.0' | 77.0 | 08 | 20 | 75.2 | 72.1 | 1018 | 15 | 6 | 6 | 7 | 4 | 10 | 1 | 34.69 |
| 199 | 2100 | 5/29 | 19°49.5' | 152°58.0' | 77.0 | 09 | 15 | 76.8 | 72.5 | 1018 | 25 | 6 | 6 | 7 | 3 | 09 | 3 | 34.75 |
| 200 | 0000 | 5/30 | 19°20.5' | 153°00.5' | 77.4 | 07 | 19 | 77.2 | 73.1 | 1016 | 15 | 8 | 3 | 7 | 3 | 11 | 3 | 34.75 |

Table 4.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 44 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 201 | 0300 | 5/30 | 18°50.5' | 153°02.5' | 77.2 | 09 | 17 | 77.2 | 73.1 | 1015 | 15 | 8 | 4 | 7 | 3 | 10 | 3 | 34.65 |
| 202 | 0600 | 5/30 | 18°22.0' | 153°04.0' | 77.0 | 09 | 18 | 76.6 | 72.8 | 1017 | 00 | X | X | 7 | 4 | 09 | 3 | 34.58 |
| 203 | 0900 | 5/30 | 17°52.5' | 153°05.0' | 77.4 | 09 | 19 | 75.8 | 73.0 | 1017 | 00 | X | X | 6 | 4 | 09 | 3 | 34.66 |
| 204 | 1200 | 5/30 | 17°24.0' | 153°06.0' | 77.2 | 07 | 19 | 76.2 | 71.5 | 1016 | 00 | 8 | 2 | 6 | 3 | 10 | 3 | 34.60 |
| 205 | 1500 | 5/30 | 16°55.5' | 153°07.0' | 77.8 | 08 | 21 | 76.0 | 70.7 | 1015 | 00 | 4 | 4 | 6 | 3 | 10 | 3 | 34.54 |
| 206 | 1800 | 5/30 | 17°10.0' | 153°30.0' | 77.5 | 07 | 16 | 76.6 | 70.2 | 1017 | 01 | 8 | 2 | 7 | 3 | 09 | 3 | 34.57 |
| 207 | 2100 | 5/30 | 17°24.5' | 153°55.0' | 77.8 | 07 | 16 | 76.8 | 71.1 | 1017 | 03 | 8 | 4 | 7 | 3 | 07 | 3 | 34.57 |
| 208 | 0000 | 5/31 | 17°40.0' | 154°21.0' | 77.6 | 05 | 15 | 77.1 | 70.3 | 1015 | 02 | 8 | 2 | 7 | 4 | 08 | 3 | 34.73 |
| 209 | 0300 | 5/31 | 17°56.5' | 154°47.0' | 77.5 | 07 | 15 | 77.0 | 70.8 | 1014 | 02 | 8 | 2 | 7 | 3 | 06 | 3 | 34.67 |
| 210 | 0600 | 5/31 | 18°13.0' | 155°13.5' | 77.3 | 06 | 17 | 76.3 | 70.5 | 1016 | 02 | 8 | 2 | 6 | 3 | 05 | 3 | 34.59 |
| 211 | 0900 | 5/31 | 18°25.0' | 155°33.0' | 77.3 | 06 | 22 | 76.0 | 70.2 | 1017 | 00 | X | X | 6 | 3 | 05 | 3 | 34.55 |
| 212 | 1600 | 5/31 | 19°08.0' | 156°16.0' | 77.1 | 06 | 05 | 76.5 | 71.0 | 1015 | 15 | 1 | 2 | 6 | 3 | XX | X | 34.59 |
| 213 | 0300 | 6/1 | 20°12.0' | 156°16.0' | 77.4 | 06 | 22 | 77.0 | 71.1 | 1014 | 02 | 2 | 1 | 7 | 3 | 05 | 1 | 34.68 |
| 214 | 0600 | 6/1 | 20°20.5' | 156°36.0' | 76.5 | 07 | 18 | 75.4 | 70.0 | 1016 | 03 | 1 | 2 | 7 | 3 | 06 | 3 | 34.73 |
| 215 | 0900 | 6/1 | 20°37.0' | 157°02.0' | 78.2 | 13 | 07 | 76.0 | 67.8 | 1017 | 00 | X | X | 7 | 2 | XX | X | 34.48 |
| 216 | 1200 | 6/1 | 20°53.0' | 157°27.5' | 77.1 | 08 | 19 | 75.2 | 70.0 | 1016 | 00 | X | 1 | 7 | 2 | XX | X | 34.66 |
| 217 | 1500 | 6/1 | 21°13.5' | 157°51.0' | 76.0 | 06 | 15 | 75.0 | 70.0 | 1016 | 00 | 8 | 1 | 7 | 2 | XX | X | 34.81 |

Table 5.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 45
(Recording and coding of data follows U.S. Navy Hydrographic Office, 1956.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro- meter (mb.) | Wear- ther | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|-------------------|------------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 1 | 2200 | 7/17 | 21°09' | 158°01' | 78.6 | 06 | 18 | 79.0 | 75.0 | 1019 | 00 | 8 | 2 | 8 | 3 | 08 | 1 | 34.54 |
| 2 | 0100 | 7/18 | 20°51' | 158°21' | 79.5 | 07 | 15 | 80.0 | 75.5 | 1017 | 03 | 8 | 6 | 8 | 3 | 08 | 1 | 34.60 |
| 3 | 0400 | 7/18 | 20°31' | 158°43' | 79.5 | 06 | 08 | 79.5 | 75.2 | 1017 | 02 | 8 | 4 | 8 | 2 | 07 | 1 | 34.59 |
| 4 | 0700 | 7/18 | 20°16' | 158°54' | 79.0 | 06 | 07 | 79.0 | 76.0 | 1019 | 02 | X 1/ | X | X | 2 | 07 | 1 | 34.50 |
| 5 | 1000 | 7/18 | 19°56' | 159°11' | 78.9 | 07 | 13 | 79.1 | 75.3 | 1019 | 02 | X | X | X | 2 | 07 | 1 | 34.49 |
| 6 | 1300 | 7/18 | 19°36' | 159°28' | 78.5 | 07 | 13 | 78.3 | 74.6 | 1017 | 02 | 8,1 | 4 | 5 | 2 | 07 | 1 | 34.40 |
| 7 | 1600 | 7/18 | 19°15' | 159°46' | 78.4 | 07 | 12 | 78.4 | 75.0 | 1018 | 02 | 8,1 | 5 | 7 | 2 | 07 | 1 | 34.49 |
| 8 | 1900 | 7/18 | 18°54' | 160°04' | 78.7 | 10 | 14 | 79.7 | 74.8 | 1016 | 03 | 1,8 | 6 | 7 | 3 | 10 | 1 | 34.40 |
| 9 | 2200 | 7/18 | 18°34' | 160°21' | 79.0 | 11 | 12 | 79.8 | 75.4 | 1018 | 02 | 8 | 6 | 7 | 2 | 10 | 1 | 34.53 |
| 10 | 0100 | 7/19 | 18°15' | 160°40' | 79.7 | 11 | 12 | 80.2 | 74.5 | 1016 | 01 | 8 | 2 | 7 | 2 | 10 | 1 | 34.50 |
| 11 | 0400 | 7/19 | 18°00' | 161°01' | 79.5 | 10 | 10 | 79.6 | 75.0 | 1016 | 02 | 8 | 3 | 8 | 3 | 10 | 1 | 34.54 |
| 12 | 0700 | 7/19 | 18°13' | 161°17' | 79.6 | 07 | 16 | 79.8 | 75.3 | 1015 | 00 | X | X | X | 2 | 08 | 1 | 34.43 |
| 13 | 1000 | 7/19 | 18°31' | 161°36' | 79.5 | 08 | 17 | 79.0 | 75.2 | 1017 | 02 | 8 | 4 | 5 | 3 | 07 | 1 | 34.48 |
| 14 | 1300 | 7/19 | 18°46' | 161°56' | 79.2 | 08 | 17 | 78.8 | 74.0 | 1017 | 02 | 8 | 4 | 5 | 3 | 07 | 1 | 34.49 |
| 15 | 1600 | 7/19 | 19°03' | 162°15' | 79.5 | 08 | 14 | 79.1 | 74.0 | 1016 | 02 | 1,8 | 2 | 7 | 3 | 07 | 1 | 34.44 |
| 16 | 1900 | 7/19 | 19°19' | 162°32' | 79.5 | 10 | 17 | 80.3 | 74.4 | 1015 | 01 | 8 | 1 | 7 | 3 | 05 | 4 | 34.47 |
| 17 | 2200 | 7/19 | 19°39' | 162°51' | 79.9 | 09 | 17 | 80.9 | 74.7 | 1018 | 02 | 8 | 3 | 8 | 3 | 09 | 1 | 34.46 |
| 18 | 0100 | 7/20 | 20°00' | 163°09' | 80.0 | 09 | 15 | 80.1 | 74.8 | 1017 | 02 | 8 | 3 | 8 | 3 | 09 | 1 | 34.47 |
| 19 | 0400 | 7/20 | 20°22' | 163°27' | 80.0 | 09 | 14 | 79.2 | 75.1 | 1017 | 02 | 8 | 2 | 8 | 3 | 09 | 1 | 34.43 |
| 20 | 0700 | 7/20 | 20°40' | 163°40' | 80.0 | 09 | 19 | 80.0 | 75.0 | 1016 | 25 | 8 | 2 | 7 | 3 | 09 | 1 | 34.26 |
| 21 | 1000 | 7/20 | 21°01' | 164°00' | 78.8 | 09 | 12 | 79.1 | 73.8 | 1019 | 02 | 8 | 4 | 5 | 3 | 09 | 1 | 34.83 |
| 22 | 1300 | 7/20 | 21°21' | 164°18' | 78.8 | 10 | 16 | 78.8 | 74.4 | 1019 | 02 | 8 | 4 | 5 | 3 | 09 | 1 | 34.77 |
| 23 | 1600 | 7/20 | 21°41' | 164°36' | 78.5 | 09 | 14 | 77.8 | 73.5 | 1019 | 02 | 1,8 | 2 | 7 | 3 | 09 | 1 | 34.72 |
| 24 | 1900 | 7/20 | 22°00' | 164°53' | 79.0 | 08 | 16 | 79.4 | 74.6 | 1017 | 03 | 8,6 | 3 | 7 | 3 | 09 | 1 | 34.82 |
| 25 | 2200 | 7/20 | 22°18' | 165°11' | 79.4 | 08 | 10 | 78.2 | 73.8 | 1018 | 14 | 8,6 | 5 | 7 | 2 | 09 | 1 | 34.76 |
| 26 | 0100 | 7/21 | 22°39' | 165°32' | 79.7 | 09 | 13 | 79.5 | 74.6 | 1017 | 02 | 8,6 | 5 | 7 | 2 | 09 | 1 | 34.66 |
| 27 | 0400 | 7/21 | 23°00' | 165°52' | 79.9 | 09 | 12 | 79.6 | 74.0 | 1019 | 02 | 8 | 3 | 8 | 2 | 09 | 1 | 34.79 |
| 28 | 0700 | 7/21 | 23°20' | 166°09' | 79.5 | 09 | 15 | 79.5 | 73.5 | 1017 | 01 | 8 | 2 | 7 | 2 | 09 | 1 | 34.70 |
| 29 | 2200 | 7/22 | 24°03' | 166°05' | 79.4 | 06 | 10 | 78.3 | 72.6 | 1018 | 00 | 6,3 | 5 | 7 | 2 | 08 | 1 | 34.94 |
| 30 | 0100 | 7/23 | 24°11' | 165°38' | 79.3 | 09 | 11 | 78.3 | 73.5 | 1017 | 01 | 5,8 | 5 | 7 | 2 | 10 | 1 | 35.11 |
| 31 | 0400 | 7/23 | 24°19' | 165°10' | 79.3 | 07 | 11 | 79.1 | 72.5 | 1016 | 50 | 8,6 | 6 | 7 | 2 | 10 | 1 | 35.01 |
| 32 | 0700 | 7/23 | 24°25' | 164°46' | 78.7 | 09 | 10 | 77.5 | 72.5 | 1019 | 02 | 8,6 | 7 | 7 | 2 | 09 | 1 | 34.99 |
| 33 | 1000 | 7/23 | 24°37' | 164°18' | 78.7 | 07 | 09 | 75.7 | 70.8 | 1017 | 00 | X | X | 5 | 2 | 09 | 1 | 34.97 |
| 34 | 1300 | 7/23 | 24°47' | 163°51' | 78.3 | 07 | 08 | 77.6 | 72.0 | 1016 | 00 | 8 | 2 | 5 | 2 | 09 | 1 | 34.95 |
| 35 | 1600 | 7/23 | 24°59' | 163°23' | 78.6 | 08 | 08 | 77.0 | 70.5 | 1017 | 00 | 8 | 4 | 7 | 2 | 09 | 1 | 34.73 |
| 36 | 1900 | 7/23 | 25°07' | 162°54' | 78.0 | 08 | 09 | 80.0 | 72.0 | 1018 | 02 | 8 | 4 | 7 | 1 | 09 | 1 | 34.93 |
| 37 | 2200 | 7/23 | 25°16' | 162°24' | 79.8 | 07 | 02 | 79.4 | 71.8 | 1017 | 01 | 8 | 1 | 7 | 1 | 09 | 1 | 34.93 |
| 38 | 0100 | 7/24 | 25°23' | 161°56' | 83.7 | 00 | 00 | 80.6 | 71.5 | 1017 | 03 | 8 | 2 | 7 | 0 | 08 | 1 | 34.77 |
| 39 | 0400 | 7/24 | 25°31' | 161°29' | 81.4 | 07 | 02 | 77.9 | 71.6 | 1016 | 15 | 8 | 3 | 7 | 1 | 08 | 3 | 34.85 |
| 40 | 0930 | 7/24 | 25°55' | 161°01' | 78.1 | 09 | 08 | 78.2 | 73.7 | 1018 | 00 | 8 | 3 | 7 | 1 | 08 | 1 | 35.14 |

1/ X indicates that no observation was recorded.

Table 5.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 45 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|-----------|-------------|----------------|----------------|-----------------|---------|---------|-------|------------|-------|----------------|--|
| | | | | | | Dir. (°T) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | | | |
| 41 | 1200 | 7/24 | 25°40' | 160°45' | 78.6 | 09 | 07 | 76.6 | 73.0 | 1017 | 01 | 8 | 2 | 7 | 1 | 09 | 3 |
| 42 | 1300 | 7/24 | 25°31' | 160°40' | 78.6 | 10 | 06 | 77.2 | 73.0 | 1017 | 02 | 8 | 2 | 7 | 1 | 09 | 3 |
| 43 | 1600 | 7/24 | 25°06' | 160°22' | 78.7 | 00 | 00 | 74.8 | 70.0 | 1017 | 15 | 8,6 | 7 | 6 | 1 | 10 | 1 |
| 44 | 1900 | 7/24 | 24°41' | 160°05' | 79.1 | 11 | 05 | 79.8 | 73.8 | 1018 | 01 | 8,6 | 2 | 7 | 1 | 11 | 1 |
| 45 | 2200 | 7/24 | 24°16' | 159°47' | 80.2 | 15 | 04 | 80.4 | 73.3 | 1018 | 02 | 8 | 2 | 7 | 1 | 11 | 1 |
| 46 | 0100 | 7/25 | 23°51' | 159°30' | 81.1 | 11 | 06 | 80.3 | 72.7 | 1018 | 02 | 8 | 2 | 7 | 1 | 11 | 1 |
| 47 | 0400 | 7/25 | 23°27' | 159°13' | 79.8 | 07 | 08 | 78.3 | 73.8 | 1017 | 02 | 8 | 2 | 7 | 1 | 09 | 1 |
| 48 | 0700 | 7/25 | 23°06' | 158°57' | 80.0 | 09 | 06 | 79.2 | 74.8 | 1018 | 03 | 8 | 4 | 7 | 1 | 09 | 1 |
| 49 | 1000 | 7/25 | 22°45' | 158°41' | 79.0 | 09 | 08 | 79.0 | 75.3 | 1018 | 15 | 8 | 4 | 7 | 1 | 09 | 1 |
| 50 | 1300 | 7/25 | 22°24' | 158°21' | 78.5 | 09 | 08 | 77.2 | 74.0 | 1017 | 15 | 8 | 6 | 7 | 1 | 09 | 1 |
| 51 | 1620 | 7/25 | 21°59' | 157°59' | 78.2 | 08 | 08 | 78.2 | 74.8 | 1017 | 15 | 1,6,8 | 6 | 7 | 1 | 07 | 1 |
| 52 | 1900 | 7/25 | 22°14' | 157°35' | 78.4 | 07 | 02 | 81.0 | 76.1 | 1018 | 01 | 6,8 | 4 | 7 | 1 | 07 | 1 |
| 53 | 2200 | 7/25 | 22°22' | 157°22' | 80.2 | 10 | 07 | 81.4 | 75.7 | 1017 | 03 | 1,2,5,8 | 5 | 7 | 1 | 04 | 1 |
| 54 | 0130 | 7/26 | 22°31' | 157°03' | 80.3 | 13 | 10 | 82.4 | 77.6 | 1016 | 15 | 8,2,5 | 4 | 7 | 1 | 04 | 1 |
| 55 | 0400 | 7/26 | 22°41' | 156°38' | 80.2 | 13 | 11 | 80.0 | 75.4 | 1017 | 02 | 8,1 | 4 | 7 | 1 | 05 | 1 |
| 56 | 0700 | 7/26 | 22°52' | 156°13' | 79.5 | 11 | 09 | 80.1 | 76.1 | 1017 | 02 | 8,1 | 4 | 7 | 1 | 06 | 1 |
| 57 | 1000 | 7/26 | 23°06' | 155°47' | 78.7 | 07 | 11 | 79.3 | 76.0 | 1017 | 03 | 8 | 5 | 7 | 2 | 06 | 1 |
| 58 | 1300 | 7/26 | 23°21' | 155°22' | 78.5 | 07 | 17 | 79.1 | 74.5 | 1017 | 15 | 8,3 | 5 | 7 | 3 | 06 | 1 |
| 59 | 1600 | 7/26 | 23°37' | 154°58' | 77.0 | 11 | 16 | 77.3 | 72.8 | 1017 | 15 | 8,4 | 6 | 7 | 3 | 07 | 1 |
| 60 | 1900 | 7/26 | 24°00' | 154°41' | 77.4 | 11 | 16 | 78.0 | 73.3 | 1019 | 03 | 8,5 | 6 | 7 | 3 | 08 | 1 |
| 61 | 2200 | 7/26 | 24°23' | 154°24' | 77.6 | 06 | 09 | 82.0 | 75.0 | 1019 | 02 | 8,2 | 5 | 7 | 2 | 07 | 1 |
| 62 | 0100 | 7/27 | 24°45' | 154°05' | 77.2 | 06 | 12 | 78.1 | 72.0 | 1018 | 02 | 8,2 | 4 | 7 | 3 | 07 | 1 |
| 63 | 0400 | 7/27 | 25°08' | 153°46' | 77.1 | 10 | 11 | 78.3 | 71.7 | 1018 | 03 | 4,8 | 6 | 7 | 2 | 07 | 1 |
| 64 | 0700 | 7/27 | 25°29' | 153°27' | 76.7 | 10 | 14 | 77.1 | 70.1 | 1020 | 00 | X | X | 5 | 2 | 08 | 1 |
| 65 | 1055 | 7/27 | 25°58' | 152°59' | 77.1 | 10 | 16 | 77.5 | 70.2 | 1019 | 00 | X | X | 6 | 3 | 08 | 1 |
| 66 | 1300 | 7/27 | 25°39' | 152°57' | 77.1 | 10 | 17 | 77.4 | 70.5 | 1019 | 01 | 8,6 | 5 | 7 | 3 | 09 | 1 |
| 67 | 1600 | 7/27 | 25°09' | 152°55' | 77.2 | 10 | 14 | 75.6 | 69.7 | 1019 | 01 | 1,8 | 3 | 7 | 3 | 09 | 1 |
| 68 | 1900 | 7/27 | 24°41' | 152°54' | 77.0 | 10 | 12 | 76.8 | 71.1 | 1020 | 15 | 8,1,4 | 6 | 7 | 2 | 10 | 1 |
| 69 | 2200 | 7/27 | 24°13' | 152°55' | 77.7 | 10 | 15 | 78.1 | 72.3 | 1020 | 01 | 8,1,2 | 5 | 7 | 2 | 10 | 1 |
| 70 | 0100 | 7/28 | 23°46' | 152°54' | 77.5 | 10 | 10 | 78.0 | 70.9 | 1018 | 01 | 8,1 | 2 | 7 | 2 | 10 | 1 |
| 71 | 0400 | 7/28 | 23°18' | 152°53' | 78.0 | 08 | 14 | 78.5 | 71.3 | 1018 | 02 | 8 | 2 | 7 | 3 | 09 | 1 |
| 72 | 0700 | 7/28 | 22°52' | 152°49' | 78.1 | 08 | 17 | 76.7 | 72.2 | 1019 | 00 | X | X | 5 | 3 | 09 | 1 |
| 73 | 1000 | 7/28 | 22°23' | 152°49' | 79.0 | 09 | 18 | 78.0 | 73.1 | 1018 | 00 | 8 | 6 | 6 | 3 | 09 | 1 |
| 74 | 1300 | 7/28 | 21°54' | 152°50' | 77.7 | 09 | 11 | 76.7 | 72.2 | 1017 | 02 | 8 | 6 | 6 | 3 | 09 | 1 |
| 75 | 1600 | 7/28 | 21°25' | 152°50' | 77.5 | 09 | 12 | 75.7 | 73.6 | 1017 | 25 | 0,8 | 7 | 7 | 3 | 09 | 1 |
| 76 | 1900 | 7/28 | 20°57' | 152°50' | 78.0 | 08 | 10 | 77.5 | 74.8 | 1017 | 15 | 8,6 | 6 | 7 | 2 | 09 | 1 |
| 77 | 2200 | 7/28 | 20°28' | 152°50' | 78.7 | 08 | 11 | 81.0 | 74.8 | 1016 | 01 | 8,6 | 4 | 7 | 2 | 09 | 1 |
| 78 | 0100 | 7/29 | 20°00' | 152°52' | 78.4 | 08 | 10 | 79.5 | 74.8 | 1015 | 50 | 8,6 | 6 | 7 | 2 | 08 | 1 |
| 79 | 0400 | 7/29 | 19°32' | 152°54' | 78.1 | 06 | 14 | 78.3 | 74.6 | 1015 | 01 | 8 | 2 | 7 | 3 | 08 | 1 |
| 80 | 0700 | 7/29 | 19°08' | 152°55' | 77.3 | 08 | 14 | 77.9 | 74.3 | 1016 | 02 | 8,6 | 2 | 5 | 3 | 08 | 1 |

Table 5.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 45 (con.)

| Ser. No. | Time Date, (GCT) 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (%) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|-----------------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 81 | 1000 7/29 | 18°39' | 152°56' | 77.8 | 08 | 14 | 78.5 | 74.9 | 1015 | 02 | X | 5 | 7 | 3 | 08 | 1 | 34.78 |
| 82 | 1300 7/29 | 18°10' | 152°59' | 77.8 | 09 | 15 | 77.6 | 73.5 | 1015 | 02 | 8 | 5 | 7 | 3 | 09 | 1 | 34.78 |
| 83 | 1600 7/29 | 17°38.5' | 153°03.0' | 77.8 | 07 | 14 | 78.5 | 74.6 | 1013 | 01 | 8 | 2 | 7 | 3 | 09 | 1 | 34.82 |
| 84 | 2000 7/29 | 16°59.0' | 153°04.0' | 78.5 | 09 | 12 | 79.9 | 74.8 | 1014 | 01 | 8,6 | 4 | 7 | 3 | 09 | 1 | 34.78 |
| 85 | 2200 7/29 | 16°57.0' | 153°04.5' | 78.6 | 09 | 12 | 85.0 | 78.0 | 1014 | 02 | 8,6 | 4 | 7 | 3 | 09 | 1 | 34.78 |
| 86 | 0100 7/30 | 16°53.0' | 153°54.0' | 78.7 | 09 | 09 | 83.0 | 75.8 | 1013 | 02 | 8 | 4 | 7 | 2 | 09 | 1 | 34.75 |
| 87 | 0400 7/30 | 16°50.0' | 154°24.0' | 78.7 | 09 | 13 | 82.4 | 75.3 | 1012 | 03 | 4,8 | 5 | 7 | 2 | 09 | 1 | 34.73 |
| 88 | 0700 7/30 | 16°48.5' | 154°48.0' | 78.4 | 07 | 12 | 78.7 | 74.0 | 1014 | 02 | 8,6 | 2 | 5 | 2 | 09 | 1 | 34.67 |
| 89 | 1000 7/30 | 16°50.0' | 155°17.0' | 78.5 | 07 | 11 | 78.8 | 73.9 | 1014 | 01 | 8 | 1 | 5 | 2 | 09 | 1 | 34.69 |
| 90 | 1400 7/30 | 16°52.0' | 155°55.0' | 78.5 | 06 | 11 | 78.5 | 74.5 | 1013 | 02 | 8 | 2 | 7 | 2 | 08 | 1 | 34.67 |
| 91 | 1600 7/30 | 17°09.5' | 156°04.0' | 78.5 | 06 | 09 | 77.3 | 74.5 | 1013 | 02 | 8 | 3 | 7 | 2 | 07 | 1 | 34.66 |
| 92 | 1900 7/30 | 17°37.0' | 156°19.0' | 78.4 | 09 | 14 | 79.6 | 74.6 | 1014 | 01 | 8 | 2 | 7 | 2 | 08 | 1 | 34.68 |
| 93 | 2200 7/30 | 18°06.0' | 156°33.0' | 79.1 | 09 | 12 | 79.1 | 74.8 | 1014 | 03 | 8,4 | 5 | 7 | 2 | 08 | 1 | 34.71 |
| 94 | 0100 7/31 | 18°33.0' | 156°47.0' | 79.6 | 09 | 13 | 79.7 | 74.0 | 1013 | 02 | 8,4,1 | 5 | 7 | 2 | 09 | 1 | 35.09 |
| 95 | 0400 7/31 | 19°00.5' | 157°01.0' | 79.6 | 09 | 05 | 78.5 | 74.0 | 1014 | 15 | 8,1 | 6 | 7 | 2 | 09 | 1 | 34.77 |
| 96 | 0700 7/31 | 19°25.5' | 157°10.0' | 79.2 | 05 | 15 | 80.6 | 76.0 | 1014 | 01 | 8 | 2 | 7 | 1 | 08 | 1 | 34.65 |
| 97 | 1000 7/31 | 19°52.0' | 157°20.0' | 78.6 | 06 | 16 | 79.9 | 75.3 | 1014 | 00 | X | X | 7 | 2 | 08 | 1 | 34.67 |
| 98 | 1300 7/31 | 20°18.0' | 157°29.0' | 80.5 | 09 | 17 | 79.5 | 75.0 | 1014 | 00 | X | 2 | 7 | 2 | 08 | 1 | 34.60 |
| 99 | 0330 8/3 | 21°15.0' | 158°10.0' | 80.3 | 07 | 17 | 79.9 | 74.0 | 1015 | 03 | 8,6 | 6 | 7 | 3 | 08 | 1 | |
| 100 | 2255 8/3 | 21°07.0' | 158°31.0' | 80.3 | 08 | 17 | 82.2 | 74.1 | 1014 | 03 | 8,6 | 6 | 7 | 3 | 08 | 1 | |
| 101 | 0255 8/4 | 21°20.0' | 158°14.0' | 80.4 | 06 | 16 | 81.8 | 72.3 | 1013 | 01 | 8.6 | 2 | 7 | 2 | 07 | 1 | |
| 102 | 2215 8/4 | 21°27.5' | 158°19.5' | 80.8 | 05 | 05 | 86.9 | 71.9 | 1014 | 01 | 8.6 | 2 | 8 | 2 | 05 | 1 | |
| 103 | 1930 8/9 | 21°13.5' | 158°02.0' | 79.0 | 05 | 09 | 81.0 | 75.7 | 1017 | 15 | 6.8 | 6 | 7 | 1 | 05 | 1 | |
| 104 | 0325 8/10 | 21°18.5' | 158°14.0' | 80.4 | 06 | 15 | 81.8 | 75.4 | 1015 | 01 | 6.8 | 4 | 7 | 1 | 08 | 1 | |
| 105 | 0335 8/15 | 21°09.5' | 157°55.0' | 78.9 | 06 | 20 | 79.1 | 72.6 | 1015 | 00 | 6.8 | 3 | 7 | 3 | 07 | 2 | |
| 106 | 2335 8/17 | 21°07.0' | 157°47.5' | 80.2 | 27 | 07 | 82.9 | 74.2 | 1012 | 00 | 6.8 | 4 | 8 | 1 | 22 | 1 | |
| 107 | 0210 8/18 | 21°00.0' | 157°45.0' | 79.0 | 04 | 12 | 81.1 | 75.0 | 1012 | 01 | 6.8 | 3 | 8 | 3 | 05 | 2 | |
| 108 | 2115 8/19 | 21°02.5' | 157°58.5' | 79.3 | 08 | 15 | 80.2 | 75.5 | 1014 | 02 | 8 | 1 | 8 | 2 | 12 | 1 | |
| 109 | 0240 8/20 | 21°17.5' | 158°12.5' | 81.7 | 25 | 07 | 82.0 | 76.0 | 1015 | 03 | 6.8 | 4 | 8 | 1 | 15 | 1 | |
| 110 | 0230 8/24 | 21°19.0' | 158°13.0' | 80.4 | 01 | 06 | 81.9 | 75.5 | 1012 | 00 | 6.8 | 5 | 7 | 2 | 12 | 1 | |
| 111 | 0145 8/28 | 20°41.5' | 157°01.0' | 81.0 | 28 | 06 | 81.1 | 74.0 | 1012 | 01 | 2,6,8 | 4 | 8 | 1 | 06 | 2 | |
| 112 | 0130 8/29 | 20°57.0' | 158°01.0' | 80.9 | 06 | 18 | 79.5 | 72.5 | 1013 | 02 | 2,6,8 | 3 | 8 | 3 | 10 | 3 | |

Table 6.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 46
(Recording and coding of data follows U.S. Navy Hydrographic Office, 1956.)

| Ser. No. | Time Date, 1959 (GCT) | Latitude N. | Longitude W. | Bkt. (°F.) | Wind | | Air temp. | | Barometer (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|-----------------------|-------------|--------------|------------|------------|-------------|----------------|----------------|-----------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 1 | 0115 | 21°28' | 158°24' | 81.0 | 19 | 05 | 82.1 | 72.9 | 1015 | 02 | 1,6,8 | 6 | 8 | 2 | 18 | 2 | |
| | 1800 | 21°01' | 157°43' | 80.8 | | | | | | | | | | | | 34.78 | |
| 2 | 2100 | 20°36' | 157°32' | 81.4 | 13 | 10 | 81.9 | 75.9 | 1016 | 02 | 4,8 | 6 | 8 | 2 | 13 | 2 | 34.80 |
| 3 | 0000 | 20°12' | 157°20' | 80.6 | 19 | 15 | 80.7 | 75.6 | 1014 | 02 | 4,8 | 5 | 8 | 2 | 19 | 2 | 34.78 |
| 4 | 0300 | 19°48' | 157°10' | 80.2 | 08 | 08 | 79.7 | 74.5 | 1014 | 15 | 8 | 7 | 2 | 04 | 2 | 34.85 | |
| 5 | 0000 | 19°26' | 157°04' | 80.2 | 18 | 07 | 80.9 | 74.4 | 1013 | 01 | 6,8 | 6 | 7 | 3 | 12 | 3 | 34.81 |
| 6 | 0300 | 19°04' | 156°46' | 79.6 | 14 | 12 | 80.6 | 74.5 | 1012 | 02 | 6,8 | 6 | 7 | 3 | 13 | 3 | 34.83 |
| 7 | 0600 | 18°44' | 156°29' | 79.1 | 09 | 16 | 80.7 | 74.0 | 1014 | 02 | | 8 | 7 | 3 | 13 | 3 | 34.86 |
| 8 | 0900 | 18°24' | 156°12' | 78.5 | 10 | 18 | 80.0 | 73.3 | 1014 | 01 | | 5 | 7 | 3 | 13 | 3 | 34.77 |
| 9 | 1200 | 18°04' | 155°55' | 79.7 | 07 | 14 | 79.5 | 74.3 | 1012 | 01 | | 7 | 7 | 3 | 06 | 3 | 34.44 |
| 10 | 1500 | 17°44' | 155°38' | 80.0 | 07 | 13 | 79.0 | 73.1 | 1012 | 02 | | 3 | 7 | 3 | 10 | 3 | 34.40 |
| 11 | 1800 | 17°33' | 155°18' | 80.0 | 06 | 13 | 80.8 | 74.5 | 1014 | 02 | 4,6,8 | 3 | 8 | 3 | 08 | 3 | 34.37 |
| 12 | 2100 | 17°35' | 155°04' | 80.0 | 07 | 13 | 79.8 | 74.0 | 1014 | 01 | 4,8 | 2 | 8 | 3 | 08 | 3 | 34.42 |
| 13 | 0000 | 17°29' | 154°43' | 80.0 | 04 | 12 | 79.7 | 74.1 | 1012 | 02 | 4,8 | 4 | 8 | 3 | 06 | 3 | 34.45 |
| 14 | 0300 | 17°21' | 154°21' | 80.2 | 06 | 13 | 79.5 | 73.9 | 1012 | 02 | 4,8 | 4 | 8 | 3 | 06 | 3 | 34.51 |
| 15 | 0600 | 17°13' | 154°00' | 80.0 | 06 | 10 | 79.8 | 74.4 | 1013 | 01 | | 2 | 7 | 2 | 06 | 2 | 34.47 |
| 16 | 0900 | 17°10' | 153°45' | 80.0 | 06 | 11 | 79.3 | 74.6 | 1014 | 02 | | 3 | 7 | 2 | 06 | 2 | 34.34 |
| 17 | 1200 | 17°07' | 153°28' | 80.3 | 06 | 07 | 79.2 | 73.0 | 1012 | 20 | | 7 | 7 | 2 | 06 | 2 | 34.38 |
| 18 | 1500 | 17°04' | 153°11' | 80.6 | 08 | 11 | 77.8 | 73.0 | 1012 | 20 | | 6 | 7 | 2 | 09 | 2 | 34.35 |
| 19 | 1645 | 16°57' | 153°11' | 80.5 | 07 | 12 | 80.5 | 73.5 | 1013 | 00 | 4,8 | 6 | 8 | 1 | 04 | 2 | |
| 20 | 2210 | 17°00' | 153°15' | 80.5 | 09 | 10 | 80.5 | 74.2 | 1013 | 02 | 4 | 3 | 8 | 1 | 09 | 2 | 34.34 |
| 21 | 0035 | 17°06' | 153°16' | 80.7 | 06 | 10 | 80.5 | 74.8 | 1012 | 02 | 8 | 4 | 8 | 2 | 08 | 2 | |
| 22 | 0300 | 17°26' | 153°16' | 80.3 | 06 | 13 | 81.2 | 73.5 | 1012 | 02 | 8 | 4 | 8 | 2 | 08 | 2 | 34.40 |
| 23 | 0600 | 17°54' | 153°17' | 79.5 | 09 | 10 | 78.1 | 72.9 | 1013 | 02 | 8 | 2 | 6 | 2 | 08 | 2 | 34.48 |
| 24 | 1200 | 18°35' | 153°11' | 78.9 | 05 | 05 | 76.7 | 73.3 | 1014 | 20 | | 7 | 6 | 1 | 00 | 2 | 34.70 |
| 25 | 1500 | 19°02' | 153°10' | 78.7 | 08 | 06 | 75.5 | 71.0 | 1013 | 01 | | 4 | 7 | 1 | 04 | 2 | 34.92 |
| 26 | 1800 | 19°30' | 153°08' | 78.1 | 08 | 09 | 77.7 | 72.0 | 1014 | 18 | 4,6 | 7 | 6 | 1 | 04 | 1 | 34.99 |
| 27 | 2100 | 19°57' | 153°07' | 78.4 | 10 | 09 | 77.9 | 72.7 | 1015 | 01 | 4,8 | 3 | 9 | 1 | 04 | 2 | 35.12 |
| 28 | 0000 | 20°24' | 153°06' | 78.9 | 08 | 06 | 78.5 | 72.6 | 1013 | 02 | 8 | 3 | 9 | 1 | 03 | 2 | 35.15 |
| 29 | 0300 | 20°51' | 153°04' | 78.8 | 07 | 07 | 78.4 | 71.3 | 1013 | 03 | 8 | 4 | 8 | 1 | 03 | 2 | 35.04 |
| 30 | 0600 | 21°18' | 153°02' | 78.2 | 08 | 06 | 77.0 | 69.8 | 1015 | 02 | | 4 | 9 | 1 | 03 | 2 | 35.17 |
| 31 | 0900 | 21°36' | 152°57' | 78.4 | 09 | 09 | 77.2 | 70.8 | 1016 | 02 | | 3 | 6 | 1 | 03 | 2 | 35.11 |
| 32 | 1200 | 22°06' | 152°55' | 78.0 | 08 | 11 | 76.4 | 72.0 | 1015 | 02 | | 3 | 6 | 1 | 03 | 2 | 35.17 |
| 33 | 1500 | 22°34' | 152°54' | 77.9 | 09 | 08 | 77.0 | 71.5 | 1014 | 01 | 8 | 2 | 8 | 1 | 03 | 2 | 35.15 |
| 34 | 1740 | 22°50' | 153°00' | 77.7 | 00 | 02 | 76.0 | 71.9 | 1015 | 02 | 8 | 3 | 8 | 1 | 03 | 2 | 35.04 |
| 35 | 2200 | 22°50' | 153°00' | 77.2 | 10 | 10 | 78.4 | 72.5 | 1015 | 02 | 8 | 3 | 8 | 1 | 09 | 2 | |
| 36 | 0140 | 22°53' | 152°53' | 78.0 | 09 | 12 | 77.6 | 73.0 | 1013 | 03 | 4,8 | 7 | 8 | 2 | 09 | 2 | |
| 37 | 0600 | 22°48' | 153°42' | 78.3 | 13 | 12 | 78.1 | 73.9 | 1016 | 03 | | 6 | 6 | 2 | 09 | 2 | 35.04 |
| 38 | 0900 | 22°36' | 153°54' | 78.6 | 12 | 13 | 78.0 | 72.0 | 1016 | 02 | | 6 | 6 | 2 | 09 | 2 | 35.03 |
| 39 | 1155 | 22°15' | 154°15' | 78.4 | 13 | 13 | 78.3 | 73.8 | 1015 | 02 | | 4 | 6 | 2 | 10 | 2 | 35.07 |
| 40 | 1500 | 21°54' | 154°36' | 78.1 | 13 | 13 | 77.7 | 73.0 | 1015 | 01 | | 2 | 8 | 2 | 10 | 2 | 35.07 |

Table 6.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 46 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. °F. | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|----------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 41 | 1800 | 10/5 | 21°40' | 154°56' | 78.4 | 11 | 11 | 79.8 | 74.8 | 1016 | 03 | 6,8 | 6 | 7 | 2 | 13 | 2 | 35.07 |
| 42 | 2100 | 10/5 | 21°25' | 155°24' | 79.0 | 13 | 05 | 78.2 | 74.0 | 1016 | 18 | 6,8 | 6 | 6 | 2 | 13 | 2 | 35.06 |
| 43 | 0000 | 10/6 | 21°14' | 155°50' | 79.9 | 12 | 09 | 79.6 | 75.8 | 1014 | 01 | 8 | 2 | 8 | 1 | 13 | 2 | 34.97 |
| 44 | 2100 | 10/8 | 20°54' | 157°26' | 80.1 | 12 | 12 | 80.1 | 73.5 | 1015 | 02 | 8 | 2 | 8 | 2 | 11 | 3 | 34.89 |
| 45 | 2209 | 10/8 | 20°48.5' | 157°33.0' | 81.6 | | | | | | | | | | | | | 0.43 |
| 46 | 2215 | 10/8 | 20°49' | 157°32' | 81.8 | | | | | | | | | | | | | |
| 47 | 2225 | 10/8 | 20°50' | 157°32' | 82.0 | | | | | | | | | | | | | |
| 48 | 2235 | 10/8 | 20°50' | 157°31' | 81.9 | | | | | | | | | | | | | |
| 49 | 2252 | 10/8 | 20°51' | 157°30' | 81.4 | | | | | | | | | | | | | |
| 50 | 2302 | 10/8 | 20°52' | 157°30' | 81.3 | | | | | | | | | | | | | |
| 51 | 2311 | 10/8 | 20°52' | 157°29' | 81.0 | | | | | | | | | | | | | |
| 52 | 2322 | 10/8 | 20°53' | 157°28' | 80.5 | | | | | | | | | | | | | |
| 53 | 2332 | 10/8 | 20°54' | 157°28' | 80.5 | | | | | | | | | | | | | 0.46 |
| 54 | 2342 | 10/8 | 20°54' | 157°27' | 79.9 | | | | | | | | | | | | | |
| 55 | 2352 | 10/8 | 20°55' | 157°27' | 79.8 | | | | | | | | | | | | | |
| 56 | 0002 | 10/9 | 20°55' | 157°27' | 79.7 | | | | | | | | | | | | | |
| 57 | 0012 | 10/9 | 20°56' | 157°26' | 80.1 | | | | | | | | | | | | | |
| 58 | 0022 | 10/9 | 20°56' | 157°26' | 80.2 | | | | | | | | | | | | | |
| 59 | 0032 | 10/9 | 20°57' | 157°25' | 80.1 | | | | | | | | | | | | | 0.34 |
| 60 | 0042 | 10/9 | 20°57' | 157°25' | 80.1 | | | | | | | | | | | | | |
| 61 | 0052 | 10/9 | 20°58' | 157°24' | 80.0 | | | | | | | | | | | | | |
| 62 | 0102 | 10/9 | 20°59' | 157°24' | 80.1 | 09 | 17 | 80.0 | 73.9 | 1012 | 02 | 8 | 1 | 8 | 3 | 09 | 3 | 34.88 |
| 63 | 0600 | 10/9 | 20°21' | 157°54' | 80.8 | 13 | 10 | 81.1 | 74.1 | 1014 | 02 | | 6 | 6 | 3 | 13 | 3 | 34.90 |
| 64 | 0900 | 10/9 | 20°04' | 158°04' | 80.1 | 13 | 09 | 80.0 | 73.2 | 1016 | 01 | | 2 | 6 | 2 | 08 | 3 | 34.77 |
| 65 | 1200 | 10/9 | 19°41' | 158°19' | 80.0 | 16 | 12 | 76.5 | 70.8 | 1015 | 03 | | 8 | 6 | 2 | 08 | 4 | 34.70 |
| 66 | 1500 | 10/9 | 19°18' | 158°34' | 80.0 | 08 | 06 | 77.5 | 73.0 | 1014 | 02 | | | 7 | 2 | 09 | 4 | 34.84 |
| 67 | 1800 | 10/9 | 18°59' | 158°51' | 80.0 | 09 | 12 | 80.0 | 74.1 | 1015 | 03 | 6,8 | 5 | 7 | 2 | 09 | 4 | 34.85 |
| 68 | 2205 | 10/9 | 18°41' | 159°14' | 80.3 | 11 | 12 | 81.5 | 74.5 | 1015 | 02 | | 4 | 7 | 2 | 09 | 4 | 34.86 |
| 69 | 0000 | 10/10 | 18°28' | 159°28' | 80.5 | 11 | 10 | 81.1 | 73.7 | 1014 | 02 | 8 | 2 | 8 | 3 | 12 | 4 | 34.87 |
| 70 | 0300 | 10/10 | 18°12' | 159°44' | 80.5 | 09 | 13 | 80.7 | 73.7 | 1014 | 02 | 8 | 2 | 8 | 3 | 12 | 4 | 34.81 |
| 71 | 0600 | 10/10 | 17°56' | 160°06' | 79.6 | 08 | 15 | 80.0 | 74.2 | 1016 | 02 | 8 | 6 | 7 | 3 | 09 | 4 | 34.60 |
| 72 | 0900 | 10/10 | 17°29' | 160°06' | 80.0 | 12 | 22 | 78.7 | 73.0 | 1016 | 20 | 8 | 8 | 5 | 4 | 08 | 5 | 34.87 |
| 73 | 1200 | 10/10 | 17°00' | 160°08' | 80.0 | 12 | 17 | 80.3 | 74.7 | 1015 | 02 | 8 | 8 | 5 | 3 | 09 | 5 | 34.79 |
| 74 | 1500 | 10/10 | 16°36' | 160°08' | 80.0 | 08 | 16 | 79.9 | 75.0 | 1014 | 01 | | 3 | 6 | 3 | 09 | 5 | 34.56 |
| 75 | 1720 | 10/10 | 16°26' | 160°14' | 80.3 | | | 80.7 | 76.1 | 1017 | 02 | 8 | 7 | 8 | 3 | | | 34.56 |
| 76 | 2150 | 10/10 | 16°24' | 160°15' | 80.4 | 08 | 12 | 81.3 | 76.0 | 1015 | 02 | 8 | 7 | 8 | 3 | 08 | 4 | 34.44 |
| 77 | 0015 | 10/11 | 16°24' | 160°14' | 80.8 | 06 | 16 | 80.2 | 75.7 | 1013 | 02 | 8 | 6 | 8 | 3 | 08 | 4 | 34.36 |
| 78 | 0300 | 10/11 | 16°01' | 160°14' | 80.7 | 08 | 16 | 80.9 | 76.1 | 1012 | 02 | 8 | 7 | 8 | 3 | 10 | 4 | 34.51 |
| 79 | 0600 | 10/11 | 15°33' | 160°15' | 80.5 | 08 | 16 | 81.0 | 76.7 | 1014 | 20 | 8 | 8 | 6 | 2 | 06 | 3 | 34.51 |
| 80 | 0900 | 10/11 | 15°14' | 160°12' | 81.0 | 07 | 14 | 81.0 | 76.5 | 1015 | 01 | 8 | 4 | 6 | 2 | 07 | 3 | 34.46 |

Table 6.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 46 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 81 | 1200 | 10/11 | 15°32' | 160°38' | 80.7 | 07 | 12 | 80.2 | 77.1 | 1014 | 02 | 4,8 | 5 | 6 | 2 | 07 | 3 | 34.40 |
| 82 | 1500 | 10/11 | 15°50' | 161°02' | 80.7 | 07 | 15 | 79.8 | 75.5 | 1014 | 02 | 6,8 | 5 | 7 | 2 | 07 | 3 | 34.51 |
| 83 | 1800 | 10/11 | 16°06' | 161°26' | 80.0 | 05 | 14 | 79.5 | 76.0 | 1015 | 02 | 6,8 | 5 | 7 | 2 | 07 | 3 | 34.61 |
| 84 | 2100 | 10/11 | 16°20' | 161°50' | 80.5 | 07 | 15 | 80.0 | 75.2 | 1015 | 02 | 4,6,8 | 5 | 7 | 2 | 07 | 3 | 34.79 |
| 85 | 0000 | 10/12 | 16°35' | 162°14' | 81.0 | 07 | 17 | 80.4 | 75.4 | 1013 | 02 | 4,6,8 | 5 | 7 | 2 | 07 | 3 | 34.62 |
| 86 | 0300 | 10/12 | 16°52' | 162°39' | 80.8 | 09 | 13 | 81.0 | 75.0 | 1012 | 01 | 8 | 3 | 8 | 2 | 06 | 3 | 34.64 |
| 87 | 0600 | 10/12 | 17°06' | 163°01' | 80.4 | 08 | 12 | 80.0 | 74.9 | 1014 | 02 | 6,8 | 3 | 8 | 2 | 06 | 3 | 34.67 |
| 88 | 0900 | 10/12 | 17°19' | 163°09' | 80.6 | 06 | 11 | 80.0 | 75.4 | 1016 | 02 | 8 | 3 | 7 | 2 | 06 | 4 | 34.66 |
| 89 | 1200 | 10/12 | 17°42' | 163°26' | 80.5 | 05 | 10 | 79.4 | 73.9 | 1015 | 01 | 8 | 3 | 7 | 2 | 07 | 4 | 34.59 |
| 90 | 1500 | 10/12 | 18°05' | 163°42' | 81.6 | 06 | 10 | 79.4 | 72.5 | 1014 | 02 | 2 | 2 | 7 | 2 | 07 | 2 | 34.31 |
| 91 | 1800 | 10/12 | 18°28' | 163°54' | 81.2 | 09 | 14 | 80.0 | 73.7 | 1015 | 03 | 4,8 | 4 | 7 | 2 | 07 | 2 | 34.30 |
| 92 | 2100 | 10/12 | 18°53' | 163°58' | 81.4 | 08 | 12 | 80.4 | 74.0 | 1013 | 02 | 4,8 | 4 | 7 | 2 | 08 | 2 | 34.64 |
| 93 | 0000 | 10/13 | 18°47' | 164°14' | 80.6 | 08 | 09 | 81.6 | 74.0 | 1015 | 02 | 4,6,8 | 4 | 7 | 2 | 08 | 2 | 34.56 |
| 94 | 0300 | 10/13 | 18°27' | 164°36' | 81.5 | 08 | 12 | 81.5 | 74.3 | 1013 | 02 | 4,6,8 | 3 | 7 | 2 | 08 | 2 | 34.24 |
| 95 | 0600 | 10/13 | 18°08' | 164°57' | 81.3 | 06 | 13 | 80.9 | 74.8 | 1015 | 02 | 4,8 | 3 | 7 | 2 | 09 | 2 | 34.31 |
| 96 | 0900 | 10/13 | 17°54' | 165°07' | 81.6 | 07 | 16 | 80.8 | 75.3 | 1016 | 03 | 4,8 | 5 | 7 | 2 | 09 | 2 | 34.32 |
| 97 | 1200 | 10/13 | 17°34' | 165°27' | 81.8 | 08 | 14 | 80.5 | 75.2 | 1014 | 02 | 8 | 4 | 7 | 2 | 08 | 2 | 34.33 |
| 98 | 1500 | 10/13 | 17°14' | 165°47' | 81.4 | 08 | 15 | 80.2 | 74.5 | 1013 | 02 | 6,8 | 4 | 7 | 2 | 08 | 2 | 34.36 |
| 99 | 1800 | 10/13 | 16°53' | 166°08' | 80.8 | 10 | 12 | 80.0 | 74.8 | 1014 | 18 | 6,8 | 6 | 6 | 3 | 08 | 3 | 34.45 |
| 100 | 2100 | 10/13 | 16°34' | 166°30' | 80.0 | 09 | 14 | 82.2 | 74.8 | 1015 | 01 | 6,8 | 5 | 7 | 2 | 10 | 3 | 34.67 |
| 101 | 0000 | 10/14 | 16°58' | 166°43' | 81.6 | 09 | 11 | 81.0 | 74.9 | 1013 | 02 | 4,8 | 4 | 7 | 2 | 09 | 3 | 34.46 |
| 102 | 0300 | 10/14 | 17°23' | 166°55' | 81.5 | 08 | 10 | 79.7 | 75.5 | 1014 | 21 | 8 | 7 | 7 | 2 | 08 | 3 | 34.41 |
| 103 | 0600 | 10/14 | 17°47' | 167°08' | 81.3 | 10 | 15 | 80.8 | 76.1 | 1014 | 03 | 6,8 | 6 | 6 | 2 | 08 | 3 | 34.68 |
| 104 | 0900 | 10/14 | 18°16' | 167°12' | 81.3 | 05 | 14 | 80.5 | 76.0 | 1015 | 01 | 6,8 | 4 | 6 | 2 | 07 | 5 | 34.58 |
| 105 | 1200 | 10/14 | 18°45' | 167°15' | 81.7 | 04 | 10 | 80.1 | 74.3 | 1014 | 02 | 8 | 3 | 7 | 2 | 04 | 5 | 34.58 |
| 106 | 1500 | 10/14 | 19°13' | 167°19' | 81.5 | 06 | 15 | 79.7 | 75.2 | 1013 | 01 | 8 | 2 | 7 | 2 | 04 | 5 | 34.66 |
| 107 | 1800 | 10/14 | 19°37' | 167°29' | 81.1 | 04 | 17 | 80.0 | 75.1 | 1014 | 03 | 4,6,8 | 4 | 7 | 2 | 04 | 5 | 34.97 |
| 108 | 2100 | 10/14 | 19°59' | 167°17' | 81.0 | 07 | 12 | 81.0 | 74.8 | 1015 | 02 | 6,8 | 4 | 7 | 2 | 05 | 4 | 35.09 |
| 109 | 0000 | 10/15 | 20°22' | 167°01' | 81.3 | 06 | 13 | 81.4 | 75.0 | 1014 | 02 | 8 | 2 | 8 | 3 | 06 | 4 | 35.10 |
| 110 | 0300 | 10/15 | 20°45' | 166°48' | 81.2 | 06 | 12 | 80.8 | 73.8 | 1012 | 02 | 6,8 | 2 | 8 | 3 | 06 | 4 | 35.10 |
| 111 | 0600 | 10/15 | 20°42' | 166°19' | 81.5 | 07 | 13 | 78.7 | 73.4 | 1014 | 03 | 6,8 | 5 | 8 | 2 | 06 | 4 | 34.74 |
| 112 | 0900 | 10/15 | 20°38' | 165°59' | 81.8 | 07 | 14 | 80.9 | 74.7 | 1015 | 03 | 4,8 | 6 | 8 | 3 | 07 | 3 | 34.60 |
| 113 | 1200 | 10/15 | 20°33' | 165°32' | 81.4 | 07 | 14 | 80.3 | 74.5 | 1014 | 03 | 6,8 | 6 | 7 | 3 | 07 | 3 | 34.77 |
| 114 | 1500 | 10/15 | 20°27' | 165°02' | 81.0 | 07 | 11 | 80.0 | 74.5 | 1013 | 02 | 4,8 | 5 | 7 | 2 | 07 | 3 | 34.68 |
| 115 | 1800 | 10/15 | 20°21' | 164°31' | 81.3 | 06 | 12 | 81.5 | 74.0 | 1014 | 01 | 4,6,8 | 3 | 7 | 2 | 07 | 3 | 34.74 |
| 116 | 2100 | 10/15 | 20°13' | 164°02' | 81.4 | 04 | 09 | 81.1 | 73.8 | 1015 | 02 | 4,8 | 2 | 8 | 2 | 09 | 3 | 34.98 |
| 117 | 0000 | 10/16 | 20°28' | 163°42' | 81.4 | 04 | 12 | 81.6 | 75.0 | 1013 | 03 | 4,8 | 7 | 8 | 2 | 05 | 3 | 34.84 |
| 118 | 0300 | 10/16 | 20°49' | 163°26' | 81.5 | 07 | 10 | 81.4 | 75.9 | 1013 | 02 | 4,8 | 7 | 8 | 2 | 06 | 3 | 34.77 |
| 119 | 0600 | 10/16 | 21°10' | 163°09' | 81.2 | 09 | 12 | 80.5 | 75.2 | 1014 | 02 | 4,8 | 5 | 6 | 2 | 06 | 3 | 34.78 |
| 120 | 0900 | 10/16 | 21°24' | 162°57' | 81.3 | 08 | 12 | 80.2 | 74.8 | 1016 | 01 | 4,8 | 4 | 6 | 2 | 06 | 3 | 34.82 |

Table 6.--Summary of observations at bathythermograph lowerings, Charles H. Gilbert cruise 46 (con.)

| Ser. No. | Time (GCT) | Date, 1959 | Latitude N. | Longitude W. | Bkt. temp. (°F.) | Wind | | Air temp. | | Baro meter (mb.) | Weather | Clouds | | Visibility | Swell | | Surf. sal. (‰) | Surf. PO ₄ -P, (ug. at./l.) |
|----------|------------|------------|-------------|--------------|------------------|------------|-------------|----------------|----------------|------------------|---------|--------|-------|------------|------------|------|----------------|--|
| | | | | | | Dir. (°T.) | Force (kn.) | Dry bulb (°F.) | Wet bulb (°F.) | | | Type | Cover | | Dir. (°T.) | Amt. | | |
| 121 | 1200 | 10/16 | 21°46' | 162°42' | 81.1 | 07 | 14 | 80.3 | 74.0 | 1015 | 01 | 8 | 2 | 7 | 2 | 06 | 3 | 34.74 |
| 122 | 1500 | 10/16 | 22°08' | 162°26' | 80.8 | 08 | 13 | 79.5 | 73.5 | 1015 | 02 | 8 | 2 | 7 | 2 | 06 | 3 | 34.73 |
| 123 | 1800 | 10/16 | 22°30' | 162°12' | 79.7 | 08 | 12 | 80.0 | 74.8 | 1016 | 02 | 6,8 | 2 | 7 | 2 | 06 | 3 | 35.17 |
| 124 | 2100 | 10/16 | 22°54' | 161°58' | 79.9 | 10 | 16 | 80.3 | 73.5 | 1017 | 02 | 4,8 | 2 | 7 | 3 | 07 | 3 | 35.01 |
| 125 | 0300 | 10/17 | 22°31' | 161°45' | 79.8 | 08 | 12 | 80.4 | 73.2 | 1015 | 02 | 8 | 3 | 7 | 3 | 08 | 3 | 34.97 |
| 126 | 0600 | 10/17 | 22°04' | 161°35' | 80.5 | 07 | 14 | 79.8 | 73.3 | 1016 | 02 | 8 | 3 | 7 | 3 | 10 | 4 | 34.86 |
| 127 | 0900 | 10/17 | 21°35' | 161°25' | 81.0 | 09 | 15 | 79.9 | 73.7 | 1016 | 03 | 8 | 6 | 7 | 4 | 11 | 4 | 34.72 |
| 128 | 1100 | 10/17 | 21°17' | 161°18' | 80.6 | 09 | 16 | 79.7 | 71.8 | 1015 | 01 | 8 | 3 | 7 | 3 | 10 | 4 | 34.71 |
| 129 | 1500 | 10/17 | 21°32' | 160°45' | 80.5 | 10 | 17 | 79.2 | 71.5 | 1015 | 02 | 8 | 2 | 7 | 3 | 10 | 4 | 34.80 |
| 130 | 1800 | 10/17 | 21°42' | 160°22' | 80.5 | 08 | 18 | 79.5 | 72.8 | 1016 | 02 | 8 | 3 | 8 | 3 | 10 | 4 | 34.70 |
| 131 | 2100 | 10/17 | 21°58' | 160°02' | 80.8 | 11 | 11 | 79.6 | 74.0 | 1017 | 02 | 8 | 1 | 8 | 2 | 09 | 1 | 34.74 |
| 132 | 0300 | 10/18 | 22°28' | 159°40' | 80.1 | 09 | 18 | 79.8 | 74.5 | 1016 | 02 | 8 | 1 | 7 | 3 | 09 | 4 | 34.88 |
| 133 | 0600 | 10/18 | 22°51' | 159°32' | 79.9 | 10 | 14 | 80.2 | 74.2 | 1018 | 03 | 6,8 | 4 | 7 | 2 | 08 | 4 | 34.95 |
| 134 | 1200 | 10/18 | 22°27' | 159°06' | 79.4 | 08 | 12 | 78.3 | 72.1 | 1018 | 02 | 8 | 3 | 7 | 3 | 11 | 4 | 34.96 |
| 135 | 1500 | 10/18 | 22°06' | 158°48' | 79.6 | 10 | 17 | 77.7 | 71.5 | 1017 | 02 | 8 | 2 | 7 | 3 | 11 | 4 | 34.98 |
| 136 | 1800 | 10/18 | 21°46' | 158°30' | 79.0 | 08 | 16 | 78.3 | 70.6 | 1018 | 03 | 8 | 4 | 7 | 3 | 11 | 4 | 35.00 |

Table 7.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 50^{1/}

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 1/11 | 18.1° | 155.2° | 0000 | 99 | 15 | 04 | 02 | 1 | 1011.5 | 7 | 2.0 | 79.4 | 73.6 | 78.1 | 3 | 1 | 4 | 7 | 8 | 0 | 15 | 4 | 3 |
| 1/11 | 17.4° | 154.6° | 0600 | 99 | 11 | 07 | 02 | 0 | 1012.9 | 2 | 0.9 | 76.7 | 73.5 | 76.9 | 2 | 2 | 4 | X | X | X | 15 | 4 | 3 |
| 1/11 | 16.9° | 154.1° | 1200 | 99 | 08 | 10 | 02 | 0 | 1011.9 | 7 | 1.5 | 76.8 | 73.2 | 77.8 | 1 | 1 | X | X | X | X | 15 | 4 | 4 |
| 1/11 | 16.1° | 153.5° | 1800 | 99 | 11 | 12 | 15 | 2 | 1013.2 | 2 | 0.6 | 78.0 | 73.7 | 77.3 | 7 | 2 | 4 | 7 | 8 | 0 | 11 | 4 | 4 |
| 1/12 | 15.4° | 152.9° | 0000 | 99 | 08 | 14 | 03 | 2 | 1009.5 | 6 | 2.3 | 78.0 | 73.9 | 77.0 | 7 | 6 | 8 | 6 | 3 | X | 11 | 4 | 4 |
| 1/12 | 14.7° | 152.4° | 0600 | 99 | 08 | 14 | 02 | 2 | 1011.5 | 2 | 1.0 | 77.3 | 74.0 | 77.0 | 7 | X | X | X | X | X | 11 | 4 | 4 |
| 1/12 | 14.0° | 151.9° | 1200 | 99 | 08 | 14 | 02 | 0 | 1010.2 | 8 | 1.5 | 78.0 | 74.2 | 77.9 | 1 | 1 | X | X | X | X | 11 | 4 | 4 |
| 1/12 | 13.5° | 151.3° | 1800 | 99 | 09 | 18 | 02 | 2 | 1009.8 | 2 | 1.5 | 79.0 | 74.5 | 78.2 | 5 | 4 | 4 | 6 | 6 | 0 | 11 | 4 | 4 |
| 1/13 | 12.9° | 150.8° | 0000 | 99 | 11 | 21 | 02 | 1 | 1006.4 | 7 | 2.7 | 79.2 | 74.8 | 78.6 | 3 | 3 | 4 | 6 | 6 | 0 | 11 | 4 | 5 |
| 1/13 | 12.7° | 150.3° | 0600 | 99 | 12 | 16 | 03 | 1 | 1008.5 | 2 | 1.9 | 79.4 | 74.8 | 78.9 | 4 | X | X | X | X | X | 11 | 4 | 5 |
| 1/13 | 12.7° | 149.9° | 1200 | 99 | 12 | 20 | 02 | 2 | 1008.1 | 8 | 0.8 | 79.3 | 72.9 | 78.1 | 6 | X | X | X | X | X | 11 | 4 | 5 |
| 1/13 | 12.8° | 149.6° | 1800 | 99 | 12 | 19 | 02 | 0 | 1010.2 | 2 | 0.5 | 80.5 | 74.7 | 78.2 | 2 | 2 | 4 | 6 | 0 | 0 | 11 | 4 | 5 |
| 1/14 | 13.5° | 149.6° | 0600 | 99 | 11 | 14 | 02 | 0 | 1010.8 | 2 | 2.6 | 78.5 | 73.5 | 78.1 | 2 | X | X | X | X | X | 11 | 4 | 5 |
| 1/14 | 14.5° | 149.6° | 1200 | 99 | 10 | 13 | 02 | 0 | 1009.8 | 7 | 0.2 | 78.0 | 74.4 | 78.0 | 2 | X | X | X | X | X | 11 | 4 | 5 |
| 1/14 | 15.1° | 149.6° | 1800 | 98 | 85 | 13 | 14 | 2 | 1013.9 | 2 | 3.2 | 78.2 | 75.0 | 77.7 | 8 | 8 | 8 | 5 | X | X | 90 | 4 | 5 |
| 1/15 | 15.7° | 149.3° | 0600 | 99 | 10 | 14 | 02 | 2 | 1013.2 | 2 | 1.6 | 78.1 | 75.5 | 77.8 | 7 | 7 | X | X | X | X | 90 | 4 | 5 |
| 1/15 | 16.5° | 149.1° | 1200 | 99 | 13 | 14 | 02 | 2 | 1011.5 | 8 | 1.3 | 77.7 | 75.0 | 77.3 | 4 | X | X | X | X | X | 10 | 3 | 2 |
| 1/16 | 17.3° | 148.6° | 0600 | 99 | 21 | 10 | 80 | 2 | 1011.5 | 2 | 1.7 | 78.1 | 75.1 | 77.5 | 8 | X | X | X | X | X | 10 | 3 | 2 |
| 1/16 | 17.1° | 148.2° | 1200 | 99 | 03 | 14 | 02 | 2 | 1010.2 | 7 | 1.5 | 75.0 | 71.5 | 77.0 | 5 | X | X | X | X | X | 08 | 3 | 2 |
| 1/17 | 17.3° | 147.2° | 0600 | 99 | 13 | 14 | 01 | 1 | 1009.1 | 2 | 1.9 | 76.4 | 72.1 | 76.5 | 2 | 2 | 1 | 0 | 0 | 0 | 31 | 3 | 4 |

1/ All columns in USWB 1210-F are not included here. Those deleted are:

| Column | 2 | Day of week |
|--------|----|------------------------|
| " | 3 | Octant |
| " | 13 | Barometer as read |
| " | 14 | Barometer as corrected |
| " | 17 | Air temperature, °F. |
| " | 23 | Course of ship |
| " | 24 | Speed of ship |
| " | 31 | Diff. sea-air, °F. |
| " | 32 | Dew point, °F. |

Table 7.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 50 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 1/17 | 18.1° | 147.3° | 1200 | 99 | 14 | 17 | 02 | 0 | 1007.8 | 7 | 2.0 | 76.2 | 72.0 | 77.2 | 2 | X | X | X | X | X | 12 | 2 | 4 |
| 1/17 | 18.9° | 147.5° | 1800 | 99 | 15 | 20 | 02 | 1 | 1010.8 | 2 | 0.9 | 76.8 | 70.0 | 77.1 | 7 | 6 | 8 | 6 | 4 | 0 | 15 | 4 | 4 |
| 1/18 | 19.6° | 148.2° | 0000 | 99 | 15 | 23 | 02 | 1 | 1001.8 | 6 | 2.0 | 77.2 | 71.1 | 76.5 | 5 | 1 | 4 | 6 | 4 | 0 | 15 | 3 | 6 |
| 1/18 | 20.3° | 148.9° | 0600 | 99 | 16 | 23 | 02 | 1 | 1009.5 | 0 | 1.2 | 76.9 | 72.0 | 76.1 | 4 | X | X | X | X | X | 15 | 3 | 6 |
| 1/18 | 20.9° | 149.6° | 1200 | 99 | 16 | 28 | 02 | 1 | 1008.8 | 7 | 0.8 | 76.4 | 72.5 | 75.4 | 4 | X | X | X | X | X | 15 | 3 | 6 |
| 1/18 | 21.8° | 150.1° | 1800 | 99 | 16 | 30 | 14 | 2 | 1007.8 | 5 | 0.3 | 77.9 | 72.9 | 74.4 | 6 | 6 | 8 | 6 | 4 | 0 | 15 | 3 | 6 |
| 1/19 | 21.4° | 149.6° | 0600 | 98 | 16 | 24 | 02 | 2 | 1012.5 | 2 | 2.5 | 76.9 | 73.7 | 76.0 | 8 | X | X | X | X | X | 15 | 3 | 7 |
| 1/19 | 20.4° | 149.2° | 1800 | 99 | 16 | 24 | 02 | 2 | 1014.6 | 0 | 0.2 | 76.2 | 73.2 | 76.0 | 7 | 4 | 8 | 8 | 7 | X | 15 | 3 | 4 |
| 1/20 | 22.0° | 150.1° | 0000 | 97 | 11 | 18 | 63 | 2 | 1013.2 | 7 | 2.2 | 75.9 | 74.0 | 76.0 | 8 | 7 | 6 | 7 | X | X | 25 | 5 | 6 |
| 1/20 | 21.8° | 148.9° | 0600 | 98 | 15 | 18 | 60 | 2 | 1015.6 | 2 | 0.8 | 75.4 | 72.6 | 74.8 | 8 | X | X | X | X | X | 15 | 3 | 5 |
| 1/20 | 21.8° | 148.5° | 1200 | 99 | 16 | 10 | 02 | 2 | 1015.9 | 6 | 0.7 | 74.7 | 71.7 | 74.4 | 5 | X | X | X | X | X | 15 | 3 | 5 |
| 1/20 | 21.2° | 147.8° | 1800 | 99 | 05 | 14 | 14 | 6 | 1017.6 | 1 | 0.9 | 72.6 | 67.9 | 74.3 | 7 | 7 | 8 | 6 | 4 | X | 05 | 2 | 3 |
| 1/21 | 21.3° | 148.0° | 0600 | 99 | 14 | 10 | 03 | 1 | 1015.6 | 2 | 1.2 | 74.9 | 70.1 | 74.7 | 6 | X | X | X | 5 | X | 14 | 3 | 3 |
| 1/21 | 22.2° | 148.0° | 1200 | 99 | 14 | 10 | 02 | 0 | 1014.2 | 7 | 0.4 | 74.0 | 70.4 | 74.5 | 4 | 4 | 2 | 6 | 0 | 0 | 09 | 3 | 3 |
| 1/21 | 23.0° | 148.0° | 1800 | 99 | 19 | 14 | 14 | 2 | 1014.9 | 2 | 1.5 | 74.9 | 70.2 | 73.3 | 7 | 4 | 8 | 5 | 5 | 0 | 15 | 3 | 3 |
| 1/22 | 23.2° | 148.4° | 0600 | 99 | 16 | 08 | 02 | 2 | 1014.6 | 2 | 1.1 | 72.7 | 70.1 | 73.0 | 7 | X | 8 | 6 | X | X | 09 | 3 | 3 |
| 1/22 | 23.2° | 149.1° | 1200 | 99 | 16 | 07 | 14 | 8 | 1013.9 | 7 | 1.0 | 71.7 | 68.2 | 73.5 | 8 | X | 8 | 6 | X | X | 26 | 4 | 4 |
| 1/23 | 23.3° | 149.5° | 0600 | 98 | 26 | 12 | 14 | 8 | 1018.0 | 2 | 2.1 | 72.1 | 67.4 | 74.0 | 8 | X | 8 | 5 | X | X | 32 | 4 | 3 |
| 1/23 | 22.6° | 150.1° | 1200 | 99 | 33 | 14 | 02 | 0 | 1018.0 | 8 | 0.3 | 73.0 | 70.0 | 74.6 | 3 | 3 | 2 | 5 | 0 | 0 | 24 | 3 | 2 |
| 1/23 | 21.6° | 150.4° | 1800 | 99 | 03 | 13 | 02 | 0 | 1020.0 | 2 | 1.3 | 73.9 | 67.7 | 75.1 | 2 | 2 | 2 | 5 | 0 | 0 | 34 | 3 | 4 |
| 1/24 | 20.9° | 150.9° | 0000 | 99 | 04 | 18 | 02 | 0 | 1018.6 | 7 | 1.9 | 74.6 | 67.9 | 74.9 | 3 | 3 | 2 | 5 | 0 | 0 | 34 | 4 | 5 |
| 1/24 | 20.0° | 151.5° | 0600 | 99 | 04 | 26 | 02 | 0 | 1021.3 | 2 | 1.9 | 73.9 | 67.9 | 76.0 | 2 | 2 | 2 | 5 | 0 | 0 | 34 | 4 | 5 |
| 1/24 | 19.3° | 150.0° | 1200 | 98 | 06 | 22 | 03 | 1 | 1020.7 | 7 | 1.2 | 74.5 | 69.5 | 76.3 | 7 | 7 | 8 | 6 | 0 | 0 | 05 | 4 | 5 |
| 1/24 | 18.4° | 152.6° | 1800 | 96 | 05 | 22 | 80 | 2 | 1021.7 | 3 | 1.6 | 74.8 | 70.8 | 76.7 | 8 | 8 | 6 | 5 | X | X | 05 | 3 | 4 |
| 1/25 | 19.1° | 153.1° | 0000 | 98 | 08 | 22 | 02 | 1 | 1019.6 | 7 | 1.7 | 77.0 | 72.0 | 76.9 | 7 | 7 | 8 | 6 | 0 | 0 | 05 | 3 | 4 |
| 1/25 | 19.9° | 153.8° | 0600 | 99 | 07 | 20 | 15 | 2 | 1021.0 | 2 | 1.5 | 75.0 | 70.0 | 76.3 | 6 | 6 | 8 | 6 | 0 | 0 | 06 | 3 | 4 |
| 1/25 | 20.5° | 154.2° | 1200 | 97 | 09 | 18 | 02 | 2 | 1021.0 | 6 | 0.6 | 74.1 | 70.0 | 75.3 | 6 | 5 | 8 | 6 | X | 0 | 07 | 3 | 4 |
| 1/25 | 21.3° | 154.8° | 1800 | 99 | 09 | 17 | 02 | 1 | 1022.0 | 2 | 1.5 | 76.0 | 71.0 | 74.1 | 2 | 2 | 8 | 6 | 0 | 0 | 07 | 3 | 4 |
| 1/26 | 22.2° | 155.1° | 0000 | 99 | 10 | 17 | 16 | 2 | 1020.0 | 7 | 2.7 | 74.2 | 70.4 | 74.1 | 7 | 7 | 8 | 6 | 0 | 0 | 10 | 3 | 3 |
| 1/26 | 22.9° | 154.5° | 0600 | 98 | 11 | 12 | 14 | 6 | 1022.0 | 2 | 1.2 | 73.5 | 70.4 | 73.8 | 7 | 7 | 8 | 6 | X | X | 09 | 3 | 3 |
| 1/26 | 22.9° | 154.2° | 1200 | 99 | 11 | 14 | 01 | 1 | 1021.7 | 7 | 0.9 | 73.1 | 70.0 | 73.0 | 3 | 3 | 8 | 6 | 0 | 0 | 09 | 3 | 3 |
| 1/26 | 22.8° | 153.0° | 1800 | 98 | 11 | 16 | 15 | 1 | 1023.0 | 2 | 1.9 | 71.2 | 67.5 | 73.0 | 4 | 4 | 8 | 6 | 0 | 0 | 09 | 3 | 3 |
| 1/27 | 22.0° | 153.2° | 0600 | 99 | 11 | 15 | 02 | 0 | 1019.6 | 2 | 0.7 | 73.2 | 68.4 | 74.0 | 2 | X | 2 | X | X | 0 | 12 | 3 | 5 |
| 1/27 | 21.4° | 153.6° | 1200 | 99 | 10 | 19 | 02 | 1 | 1018.0 | 7 | 1.5 | 74.9 | 68.7 | 74.9 | 4 | 3 | 8 | 6 | 6 | 0 | 12 | 3 | 4 |
| 1/27 | 20.8° | 154.4° | 1800 | 99 | 13 | 17 | 02 | 0 | 1018.6 | 2 | 1.8 | 76.5 | 69.4 | 74.1 | 2 | 1 | 2 | 6 | 4 | 0 | 12 | 4 | 6 |

Table 7.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 50 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 1/28 | 20.1° | 154.9° | 0000 | 99 | 13 | 14 | 03 | 1 | 1014.9 | 7 | 3.0 | 76.8 | 70.1 | 76.1 | 4 | 4 | 8 | 6 | 4 | 0 | 12 | 4 | 6 |
| 1/29 | 18.7° | 155.7° | 0000 | 99 | 07 | 18 | 02 | 0 | 1015.2 | 7 | 3.1 | 77.0 | 71.5 | 77.5 | 2 | 2 | 2 | 6 | 0 | 0 | 12 | 4 | 5 |
| 1/29 | 18.1° | 156.6° | 0600 | 99 | 10 | 18 | 02 | 0 | 1016.9 | 2 | 1.1 | 76.7 | 71.6 | 77.3 | 1 | 2 | 2 | 6 | 0 | 0 | 10 | 4 | 5 |
| 1/29 | 17.5° | 155.2° | 1200 | 99 | 09 | 19 | 02 | 0 | 1015.6 | 7 | 0.7 | 76.7 | 71.0 | 77.5 | 3 | 3 | 2 | 6 | X | X | 09 | 4 | 3 |
| 1/29 | 16.9° | 158.0° | 1800 | 99 | 08 | 21 | 02 | 1 | 1016.6 | 2 | 1.2 | 77.2 | 72.0 | 78.0 | 6 | 6 | 2 | 6 | 0 | 0 | 08 | 4 | 4 |
| 1/30 | 17.5° | 158.7° | 0000 | 99 | 09 | 18 | 02 | 1 | 1013.9 | 7 | 2.6 | 77.2 | 71.3 | 77.6 | 4 | 4 | 2 | 6 | 0 | 0 | 08 | 4 | 4 |
| 1/30 | 18.2° | 159.5° | 0600 | 99 | 08 | 14 | 02 | 1 | 1016.6 | 2 | 2.0 | 76.9 | 71.6 | 77.4 | 3 | 3 | 2 | 6 | 0 | 0 | 08 | 4 | 4 |
| 1/30 | 18.6° | 160.0° | 1200 | 99 | 06 | 10 | 02 | 0 | 1016.6 | 7 | 1.0 | 75.0 | 70.5 | 75.6 | 2 | 2 | 2 | 6 | 0 | 0 | 11 | 4 | 4 |
| 1/30 | 19.3° | 160.8° | 1800 | 99 | 05 | 06 | 02 | 0 | 1017.6 | 2 | 1.6 | 74.9 | 69.5 | 75.5 | 3 | 3 | 8 | 6 | 6 | 0 | 11 | 4 | 3 |
| 1/31 | 19.9° | 161.7° | 0000 | 99 | 03 | 06 | 02 | 0 | 1015.6 | 7 | 2.7 | 76.5 | 69.4 | 77.4 | 1 | 1 | 1 | 5 | 0 | 0 | 11 | 4 | 4 |
| 1/31 | 20.5° | 162.3° | 0600 | 99 | 01 | 12 | 02 | 0 | 1017.6 | 2 | 2.0 | 76.7 | 69.0 | 76.1 | 3 | 3 | 8 | 5 | 0 | 0 | 11 | 4 | 3 |
| 1/31 | 21.1° | 162.4° | 1200 | 99 | 03 | 22 | 03 | 1 | 1018.0 | 4 | 0.0 | 73.0 | 68.8 | 75.4 | 6 | 6 | X | X | X | X | 11 | 4 | 3 |
| 2/1 | 22.1° | 162.7° | 0000 | 99 | 05 | 23 | 02 | 2 | 1019.6 | 7 | 2.1 | 70.0 | 62.5 | 75.0 | 7 | 7 | 8 | 6 | X | X | 03 | 3 | 6 |
| 2/1 | 22.6° | 162.7° | 0600 | 99 | 06 | 27 | 02 | 2 | 1023.0 | 2 | 2.0 | 69.0 | 60.8 | 73.8 | 2 | X | X | X | X | X | 03 | 3 | 6 |
| 2/1 | 21.8° | 163.5° | 1200 | 98 | 07 | 26 | 01 | 1 | 1022.7 | 7 | 1.5 | 69.1 | 64.2 | 74.9 | 7 | X | X | X | X | X | 07 | 3 | 5 |
| 2/1 | 21.2° | 164.0° | 1800 | 99 | 06 | 25 | 15 | 1 | 1022.0 | 3 | 0.5 | 68.5 | 64.9 | 74.5 | 5 | 5 | 8 | 6 | 0 | 0 | 07 | 3 | 6 |
| 2/2 | 20.6° | 164.7° | 0000 | 99 | 08 | 20 | 02 | 0 | 1020.3 | 7 | 2.3 | 72.1 | 66.8 | 75.4 | 4 | 4 | 8 | 6 | 0 | 0 | 07 | 3 | 6 |
| 2/2 | 20.0° | 165.2° | 0600 | 99 | 09 | 23 | 02 | 1 | 1019.3 | 2 | 0.5 | 73.1 | 67.9 | 75.5 | 3 | 3 | 8 | 6 | 0 | 0 | 08 | 3 | 5 |
| 2/2 | 19.0° | 165.3° | 1200 | 99 | 08 | 16 | 02 | 0 | 1019.0 | 7 | 1.8 | 74.5 | 68.0 | 75.0 | 3 | X | X | X | X | X | 08 | 3 | 5 |
| 2/3 | 18.2° | 166.0° | 0600 | 99 | 07 | 16 | 02 | 1 | 1016.9 | 2 | 0.9 | 75.2 | 66.0 | 74.9 | 7 | 7 | 8 | 6 | X | X | 08 | 3 | 5 |
| 2/3 | 17.4° | 166.2° | 1200 | XX | 09 | 23 | 02 | 2 | 1015.9 | 7 | 1.6 | 75.4 | 66.9 | 77.3 | 8 | X | X | X | X | X | 08 | 3 | 6 |
| 2/3 | 16.6° | 166.3° | 1800 | 98 | 07 | 20 | 02 | 2 | 1015.6 | 3 | 0.5 | 76.5 | 66.8 | 77.6 | 7 | 7 | 8 | 6 | 0 | 0 | 08 | 3 | 6 |
| 2/4 | 16.4° | 167.2° | 0000 | 99 | 08 | 22 | 01 | 1 | 1014.6 | 7 | 1.9 | 77.4 | 67.5 | 77.6 | 2 | 2 | 8 | 6 | 0 | 0 | 07 | 3 | 6 |
| 2/4 | 16.4° | 168.2° | 0600 | 99 | 08 | 21 | 02 | 1 | 1013.5 | 3 | 0.4 | 76.8 | 69.0 | 77.5 | 3 | 3 | 8 | 6 | 0 | 0 | 07 | 3 | 6 |
| 2/4 | 16.4° | 169.2° | 1200 | 99 | 08 | 22 | 02 | 0 | 1013.9 | 8 | 1.4 | 76.0 | 69.0 | 76.2 | 2 | X | X | X | X | X | 07 | 3 | 6 |
| 2/5 | 16.4° | 170.7° | 0000 | 99 | 07 | 23 | 02 | 0 | 1012.5 | 8 | 1.2 | 76.1 | 69.3 | 76.8 | 4 | 4 | 8 | 5 | 0 | 0 | 06 | 4 | 7 |
| 2/5 | 16.0° | 170.0° | 0600 | 99 | 07 | 16 | 02 | 1 | 1010.8 | 4 | 0.0 | 75.0 | 69.0 | 76.6 | 4 | 4 | 8 | 6 | 0 | 0 | 06 | 4 | 6 |
| 2/5 | 15.5° | 169.3° | 1200 | 99 | 08 | 16 | 02 | 0 | 1010.8 | 8 | 1.0 | 76.0 | 69.6 | 77.1 | 3 | X | X | X | X | X | 06 | 4 | 6 |
| 2/5 | 15.0° | 168.7° | 1800 | 99 | 09 | 14 | 14 | 1 | 1010.2 | 3 | 0.8 | 76.5 | 69.2 | 77.4 | 3 | 2 | 8 | 5 | 4 | 0 | 08 | 3 | 5 |
| 2/6 | 14.7° | 168.0° | 0000 | 99 | 08 | 19 | 02 | 1 | 1009.5 | 7 | 2.0 | 76.5 | 71.2 | 77.9 | 4 | 4 | 8 | 6 | 0 | 0 | 08 | 3 | 6 |
| 2/6 | 14.3° | 167.3° | 0600 | 99 | 07 | 20 | 02 | 1 | 1008.8 | 2 | 1.0 | 77.0 | 71.9 | 78.0 | 5 | 5 | 8 | 6 | 0 | 0 | 08 | 3 | 6 |
| 2/6 | 13.9° | 166.5° | 1200 | 98 | 07 | 20 | 14 | 2 | 1009.5 | 7 | 1.0 | 76.0 | 72.8 | 78.0 | 7 | X | X | X | X | X | 08 | 3 | 6 |
| 2/6 | 13.6° | 165.8° | 1800 | 99 | 06 | 20 | 15 | 2 | 1009.5 | 3 | 1.8 | 77.5 | 72.8 | 78.2 | 7 | 6 | 8 | 6 | 4 | 0 | 08 | 3 | 6 |
| 2/7 | 13.1° | 165.3° | 0000 | 98 | 06 | 20 | 02 | 2 | 1007.8 | 7 | 2.8 | 78.6 | 74.0 | 78.6 | 8 | 8 | 8 | 6 | 0 | 0 | 08 | 3 | 6 |
| 2/7 | 13.6° | 164.9° | 0600 | 98 | 05 | 22 | 14 | 8 | 1008.5 | 2 | 0.9 | 77.1 | 73.8 | 78.5 | 8 | X | X | X | X | X | 06 | 3 | 6 |

Table 7.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 50 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|--|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height | |
| 2/7 | 14.5° | 164.3° | 1800 | 98 | 06 | 21 | 02 | 2 | 1008.8 | 2 | 1.3 | 77.5 | 73.5 | 78.1 | 7 | 7 | 8 | 6 | 0 | 0 | 06 | 3 | 6 | |
| 2/8 | 15.5° | 163.3° | 0600 | 99 | 06 | 22 | 14 | 8 | 1009.1 | 2 | 1.8 | 76.0 | 73.2 | 76.9 | 7 | 7 | 8 | 6 | 0 | 0 | 06 | 3 | 6 | |
| 2/8 | 16.5° | 162.1° | 1800 | 98 | 06 | 13 | 14 | 2 | 1010.2 | 2 | 1.6 | 76.0 | 72.9 | 76.3 | 8 | 8 | 8 | 6 | 0 | 0 | 06 | 3 | 4 | |
| 2/9 | 17.2° | 161.6° | 0000 | 96 | 09 | 09 | 14 | 2 | 1009.8 | 8 | 1.0 | 76.8 | 74.5 | 76.5 | 8 | 8 | 6 | 4 | X | X | 09 | 3 | 4 | |
| 2/9 | 17.8° | 161.1° | 0600 | 96 | 11 | 17 | 14 | 8 | 1010.8 | 2 | 1.0 | 75.5 | 71.9 | 76.7 | 7 | 7 | 6 | 4 | X | X | 09 | 3 | 4 | |
| 2/9 | 18.4° | 160.5° | 1200 | 98 | 13 | 18 | 14 | 2 | 1011.2 | 1 | 0.8 | 77.0 | 73.9 | 75.0 | 8 | X | X | X | X | X | 09 | 3 | 4 | |
| 2/9 | 19.0° | 160.0° | 1800 | 96 | 11 | 14 | 61 | 6 | 1012.5 | 2 | 1.6 | 76.1 | 73.6 | 76.3 | 8 | 8 | 6 | 4 | X | X | 12 | 3 | 3 | |
| 2/10 | 19.7° | 159.5° | 0600 | 96 | 11 | 10 | 61 | 6 | 1014.2 | 2 | 2.2 | 74.6 | 71.0 | 76.2 | 8 | X | X | X | X | X | 10 | 3 | 3 | |
| 2/10 | 20.3° | 158.9° | 1200 | XX | 14 | 08 | 60 | 6 | 1013.2 | 7 | 1.4 | 74.1 | 71.1 | 76.1 | 8 | 8 | X | X | X | X | 10 | 3 | 3 | |

Table 8.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 511/

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|--------------------|----------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 3/4 | 21.1° | 157.5° | 0600 | 99 | 09 | 17 | 00 | 0 | 1017.6 | 1 | 1.0 | 75.0 | 68.3 | 75.1 | 1 | 1 | 1 | 5 | 0 | 0 | XX | X | X |
| 3/6 | 21.2° | 156.3° | 0000 | 98 | 08 | 20 | 00 | 0 | 1018.6 | 6 | 1.5 | 75.7 | 68.3 | 74.8 | 4 | 4 | 1 | 5 | 0 | 0 | 07 | 3 | 5 |
| 3/6 | 21.8° | 156.2° | 0600 | 97 | 08 | 20 | 00 | 1 | 1020.7 | 2 | 1.5 | 73.2 | 67.3 | 74.7 | 6 | 9 | 1 | 5 | 0 | 0 | XX | X | X |
| 3/6 | 22.2° | 155.9° | 1200 | 97 | 06 | 24 | 00 | X | 1021.3 | 8 | 1.0 | 72.0 | 66.8 | 72.8 | X | 5 | X | X | X | X | 07 | 3 | 7 |
| 3/6 | 22.8° | 155.6° | 1800 | 98 | 08 | 20 | 03 | 2 | 1022.7 | 2 | 1.5 | 71.8 | 64.1 | 73.2 | 7 | 7 | 1 | 5 | 0 | 0 | 06 | 3 | 6 |
| 3/7 | 23.3° | 155.3° | 0000 | 98 | 08 | 23 | 01 | 2 | 1021.7 | 7 | 2.8 | 74.0 | 65.6 | 72.8 | 2 | 2 | 1 | 5 | 0 | 0 | 07 | 3 | 6 |
| 3/7 | 23.9° | 155.0° | 0600 | 98 | 08 | 22 | 02 | 0 | 1023.7 | 1 | 2.0 | 72.3 | 65.5 | 72.7 | 3 | 3 | 1 | 5 | 0 | 0 | 06 | 3 | 6 |
| 3/7 | 23.9° | 154.0° | 1800 | 98 | 10 | 22 | 02 | 1 | 1023.4 | 2 | 1.5 | 71.9 | 61.6 | 71.3 | 6 | 5 | 1 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/8 | 24.0° | 153.5° | 0000 | 98 | 09 | 18 | 02 | 5 | 1021.3 | 7 | 2.1 | 72.0 | 65.3 | 70.9 | 6 | 6 | 1 | 5 | 0 | 0 | 08 | 3 | 5 |
| 3/8 | 23.9° | 152.8° | 0600 | 98 | 09 | 18 | 02 | 2 | 1022.7 | 2 | 1.2 | 71.4 | 64.0 | 70.3 | 5 | 5 | 1 | 5 | 0 | 0 | 08 | 3 | 5 |
| 3/8 | 23.9° | 152.2° | 1200 | 98 | 09 | 20 | 00 | X | 1022.0 | 7 | 1.0 | 69.5 | 64.5 | 70.2 | 6 | X | X | X | X | X | 03 | 3 | 6 |
| 3/8 | 23.9° | 151.8° | 1800 | 98 | 10 | 16 | 15 | 2 | 1022.7 | 3 | 1.0 | 71.6 | 61.9 | 70.8 | 7 | 7 | 4 | 5 | 0 | 0 | 09 | 3 | 5 |
| 3/9 | 24.0° | 151.3° | 0000 | 97 | 10 | 21 | 02 | 2 | 1021.3 | 7 | 2.1 | 69.7 | 64.0 | 72.5 | 8 | 8 | 8 | 5 | 0 | 0 | 08 | 3 | 5 |
| 3/9 | 24.0° | 150.8° | 0600 | 97 | 10 | 20 | 02 | 2 | 1022.0 | 2 | 1.1 | 71.2 | 64.0 | 71.0 | 8 | 8 | 8 | 5 | 0 | 0 | 08 | 3 | 5 |
| 3/9 | 24.0° | 150.1° | 1200 | 97 | 10 | 24 | 00 | 2 | 1021.3 | 7 | 1.3 | 71.0 | 62.3 | 70.9 | 8 | 8 | 8 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/9 | 24.0° | 149.7° | 1800 | 98 | 10 | 22 | 02 | 2 | 1022.7 | 3 | 1.7 | 70.9 | 64.0 | 71.3 | 7 | 7 | 4 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/10 | 24.0° | 149.2° | 0000 | 98 | 09 | 18 | 01 | 2 | 1021.3 | 7 | 2.4 | 72.2 | 66.0 | 72.5 | 3 | 3 | 1 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/10 | 24.0° | 148.6° | 0600 | 98 | 09 | 20 | 03 | 1 | 1022.7 | 2 | 1.4 | 70.9 | 65.0 | 71.8 | 7 | 7 | 7 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/10 | 24.0° | 147.9° | 1200 | 98 | 09 | 20 | 01 | 1 | 1022.0 | 7 | 1.4 | 70.6 | 62.5 | 70.5 | 2 | 2 | 1 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/10 | 24.0° | 147.5° | 1800 | 98 | 09 | 27 | 15 | 0 | 1022.0 | 2 | 0.5 | 70.6 | 62.0 | 71.7 | 4 | 4 | 1 | 5 | 0 | 0 | 08 | 3 | 6 |

1/ All columns in USWB 1210-F are not included here. Those deleted are:

- | | | |
|--------|----|------------------------|
| Column | 2 | Day of week |
| " | 3 | Octant |
| " | 13 | Barometer as read |
| " | 14 | Barometer as corrected |
| " | 17 | Air temperature, °F. |
| " | 23 | Course of ship |
| " | 24 | Speed of ship |
| " | 31 | Diff. sea-air, °F. |
| " | 32 | Dew point, °F. |

Table 8.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 51 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|-------------|--------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 3/11 | 24.0° | 147.0° | 0000 | 98 | 09 | 23 | 03 | 1 | 1020.0 | 7 | 1.9 | 70.9 | 63.0 | 71.1 | 5 | 5 | 1 | 5 | 0 | 0 | 08 | 3 | 6 |
| 3/11 | 24.0° | 146.5° | 0600 | 98 | 09 | 22 | 02 | 1 | 1022.0 | 2 | 1.2 | 70.2 | 63.0 | 71.0 | 5 | 5 | 7 | 5 | 0 | 0 | 08 | 3 | 7 |
| 3/11 | | | 1200 | 98 | 09 | 23 | 01 | 1 | 1020.0 | 8 | 1.0 | 69.7 | 62.4 | 70.5 | 2 | 2 | 1 | 5 | 0 | 0 | 08 | 3 | 8 |
| 3/11 | 23.9° | 145.5° | 1800 | 98 | 08 | 22 | 25 | 1 | 1022.4 | 3 | 1.9 | 70.2 | 63.7 | 70.5 | 8 | 8 | 6 | 6 | 0 | 0 | 07 | 3 | 6 |
| 3/12 | 23.6° | 145.1° | 0000 | 98 | 06 | 28 | 02 | 2 | 1020.7 | 7 | 2.0 | 70.1 | 64.7 | 70.1 | 8 | 5 | 7 | 5 | 0 | 0 | 06 | 4 | 8 |
| 3/12 | 22.8° | 145.6° | 0600 | 98 | 07 | 26 | 02 | 2 | 1021.7 | 2 | 1.6 | 70.7 | 64.5 | 71.8 | 5 | 5 | 7 | 5 | 0 | 0 | 06 | 4 | 8 |
| 3/12 | 22.1° | 146.1° | 1200 | 98 | 07 | 26 | 01 | 1 | 1020.0 | 7 | 1.7 | 72.0 | 67.0 | 72.5 | 2 | 2 | 7 | 5 | 0 | 0 | 06 | 4 | 8 |
| 3/12 | 21.4° | 146.2° | 1800 | 98 | 07 | 23 | 02 | 1 | 1020.0 | 0 | 1.0 | 72.0 | 67.4 | 72.4 | 6 | 6 | 1 | 5 | 0 | 0 | 06 | 4 | 7 |
| 3/13 | 20.7° | 146.6° | 0000 | 98 | 07 | 24 | 50 | 1 | 1016.6 | 7 | 2.8 | 71.9 | 68.8 | 73.0 | 8 | 8 | 1 | 5 | 0 | 0 | 06 | 4 | 8 |
| 3/13 | 19.8° | 146.9° | 0600 | 97 | 08 | 22 | 80 | 2 | 1017.6 | 2 | 1.5 | 72.9 | 69.1 | 73.0 | 8 | 8 | 1 | 5 | 0 | 0 | 06 | 4 | 7 |
| 3/13 | 19.3° | 147.1° | 1200 | 97 | 09 | 15 | 51 | 6 | 1015.9 | 7 | 2.3 | 71.9 | 70.2 | 73.1 | 8 | 8 | 7 | 4 | 0 | 0 | 06 | 4 | 7 |
| 3/13 | 18.3° | 147.5° | 1800 | 98 | 09 | 18 | 03 | 8 | 1015.6 | 1 | 0.4 | 74.1 | 69.8 | 75.0 | 7 | 7 | 7 | 4 | 0 | 0 | 06 | 4 | 4 |
| 3/14 | 17.7° | 147.7° | 0600 | 98 | 11 | 10 | 02 | 0 | 1014.2 | 1 | 1.5 | 76.2 | 71.2 | 74.9 | 2 | 2 | 1 | 5 | 0 | 0 | XX | X | 2 |
| 3/14 | 17.0° | 148.0° | 1200 | 98 | 10 | 05 | 02 | 0 | 1014.2 | 7 | 1.5 | 75.0 | 71.0 | 75.2 | 1 | 2 | 1 | 5 | 0 | 0 | 07 | 5 | 3 |
| 3/14 | 16.0° | 148.5° | 1800 | 98 | 13 | 06 | 02 | 0 | 1014.6 | 2 | 0.7 | 77.1 | 71.4 | 75.4 | 1 | 1 | 1 | 5 | 4 | 0 | 06 | 3 | 2 |
| 3/15 | 15.2° | 148.7° | 0000 | 98 | 07 | 06 | 03 | 1 | 1012.9 | 7 | 2.1 | 77.5 | 71.7 | 78.0 | 6 | 3 | 8 | 6 | 9 | 9 | 07 | 4 | 3 |
| 3/15 | 14.3° | 149.0° | 0600 | 98 | 05 | 06 | 02 | 2 | 1014.2 | 1 | 0.8 | 77.9 | 72.8 | 77.0 | 6 | 3 | 8 | 6 | X | X | 07 | 4 | 3 |
| 3/15 | 15.0° | 149.7° | 1200 | 98 | 04 | 10 | 01 | 1 | 1013.9 | 8 | 1.0 | 76.9 | 72.0 | 76.9 | 2 | 2 | 1 | 5 | 0 | 0 | 08 | 5 | 3 |
| 3/15 | 14.8° | 150.2° | 1800 | 98 | 06 | 15 | 02 | 0 | 1015.9 | 1 | 1.4 | 76.8 | 72.0 | 76.9 | 2 | 2 | 1 | 5 | 0 | 0 | 03 | 4 | 3 |
| 3/16 | 15.3° | 150.8° | 0600 | 98 | 06 | 15 | 02 | 0 | 1017.6 | 2 | 3.0 | 77.7 | 72.4 | 76.8 | 0 | 0 | 0 | 9 | 4 | 0 | 06 | 4 | 2 |
| 3/16 | 15.9° | 151.4° | 1200 | 98 | 06 | 15 | 03 | 0 | 1018.0 | 7 | 1.1 | 76.0 | 71.8 | 76.1 | 2 | 2 | 1 | 5 | 0 | 0 | 06 | 4 | 2 |
| 3/16 | 16.6° | 152.0° | 1800 | 98 | 04 | 16 | 02 | 0 | 1020.3 | 2 | 2.0 | 77.1 | 71.0 | 76.3 | 2 | 2 | 1 | 5 | 0 | 0 | 03 | 2 | 3 |
| 3/17 | 17.5° | 152.5° | 0000 | 98 | 04 | 18 | 03 | 0 | 1018.3 | 7 | 2.0 | 77.4 | 71.3 | 76.0 | 4 | 4 | 1 | 5 | 0 | 0 | 03 | 2 | 4 |
| 3/17 | 18.3° | 153.2° | 0600 | 98 | 05 | 21 | 02 | 0 | 1020.3 | 2 | 1.8 | 75.2 | 70.0 | 75.1 | 3 | 3 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/17 | 19.0° | 153.5° | 1200 | 98 | 05 | 17 | 02 | 0 | 1021.3 | 7 | 1.3 | 74.5 | 69.4 | 74.9 | 2 | 2 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/17 | 19.9° | 153.6° | 1800 | 98 | 06 | 18 | 02 | 0 | 1023.4 | 2 | 2.2 | 74.3 | 69.0 | 73.9 | 3 | 3 | 1 | 5 | 0 | 0 | 03 | 2 | 4 |
| 3/18 | 20.7° | 153.7° | 0000 | 98 | 04 | 14 | 02 | 0 | 1021.7 | 7 | 1.6 | 74.5 | 67.8 | 74.5 | 3 | 3 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/18 | 21.6° | 153.8° | 0600 | 97 | 05 | 20 | 02 | 1 | 1022.4 | 2 | 1.6 | 74.0 | 69.1 | 73.2 | 6 | 6 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/18 | 22.4° | 153.9° | 1200 | 98 | 05 | 16 | 02 | 1 | 1022.7 | 8 | 0.5 | 73.5 | 70.0 | 72.6 | 5 | 5 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/18 | 22.9° | 154.2° | 1800 | 98 | 05 | 13 | 02 | 1 | 1023.0 | 2 | 1.5 | 73.8 | 69.6 | 72.7 | 6 | 6 | 1 | 5 | 0 | 0 | 03 | 2 | 5 |
| 3/19 | 22.5° | 155.0° | 0000 | 98 | 07 | 09 | 02 | 2 | 1021.3 | 7 | 1.7 | 76.0 | 70.7 | 75.2 | 6 | 6 | 1 | 5 | 0 | 0 | 07 | 6 | 3 |
| 3/19 | 22.0° | 155.9° | 0600 | 98 | 06 | 17 | 02 | 0 | 1022.0 | 1 | 0.7 | 75.0 | 69.6 | 74.9 | 2 | 2 | 1 | 5 | 0 | 0 | 07 | X | 3 |
| 3/19 | 21.7° | 156.6° | 1200 | 98 | 08 | 19 | 02 | 0 | 1021.3 | 7 | 0.6 | 74.1 | 70.1 | 74.0 | 2 | 2 | 1 | 5 | 0 | 0 | 07 | 6 | 3 |
| 3/22 | 21.3° | 158.5° | 0000 | 99 | 10 | 13 | 02 | 0 | 1020.3 | 7 | 2.5 | 79.5 | 69.5 | 75.6 | 1 | 1 | 1 | 5 | 0 | 0 | 07 | 3 | 2 |
| 3/22 | 21.7° | 159.3° | 0600 | 98 | 06 | 22 | 00 | 1 | 1021.7 | 1 | 1.7 | 76.3 | 70.0 | 75.8 | 6 | 6 | 1 | 5 | 0 | 0 | 07 | 3 | 2 |

Table 8.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 51 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|--|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 3/22 | 22.1° | 160.2° | 1200 | 98 | 06 | 19 | 02 | 1 | 1021.0 | 7 | 1.2 | 75.0 | 70.0 | 75.0 | 4 | 1 | 1 | 5 | 1 | 0 | 06 | 3 | 4 | |
| 3/22 | 22.6° | 161.1° | 1800 | 98 | 08 | 17 | 00 | 1 | 1021.3 | 1 | 1.3 | 75.4 | 69.8 | 74.0 | 6 | 6 | 1 | 5 | 0 | 0 | 05 | 3 | 4 | |
| 3/23 | 22.9° | 161.7° | 0000 | 98 | 13 | 15 | 02 | 1 | 1018.6 | 7 | 2.0 | 76.0 | 69.5 | 74.2 | 2 | 2 | 1 | 5 | 0 | 0 | 12 | 3 | 4 | |
| 3/23 | 22.1° | 161.5° | 0600 | 98 | 16 | 06 | 02 | 0 | 1018.6 | 3 | 0.5 | 75.2 | 68.6 | 74.2 | 1 | 1 | 1 | 5 | 0 | 0 | 12 | 3 | 4 | |
| 3/23 | 21.3° | 161.3° | 1200 | 98 | 16 | 07 | 00 | 0 | 1018.3 | 7 | 1.1 | 75.0 | 69.0 | 75.8 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 3 | 4 | |
| 3/23 | 20.5° | 161.1° | 1800 | 98 | 09 | 12 | 03 | 1 | 1019.3 | 1 | 1.4 | 75.5 | 70.2 | 75.3 | 6 | 6 | 4 | 5 | 0 | 0 | 06 | 3 | 3 | |
| 3/24 | 20.0° | 160.9° | 0600 | 98 | 11 | 11 | 01 | 1 | 1018.6 | 2 | 1.2 | 76.4 | 70.3 | 76.5 | 1 | 1 | 1 | 5 | 0 | 0 | 12 | 3 | 3 | |
| 3/24 | 19.1° | 160.6° | 1200 | 98 | 11 | 10 | 02 | 0 | 1020.0 | 8 | 0.4 | 76.2 | 70.6 | 76.6 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 3 | 4 | |
| 3/24 | 18.2° | 160.4° | 1800 | 98 | 09 | 18 | 15 | 1 | 1020.0 | 2 | 2.0 | 76.4 | 71.5 | 76.9 | 6 | 6 | 4 | 5 | 0 | 0 | 11 | 3 | 4 | |
| 3/25 | 18.3° | 159.7° | 0000 | 98 | 09 | 19 | 02 | 2 | 1018.6 | 7 | 1.6 | 77.9 | 70.0 | 77.0 | 6 | 2 | 1 | 5 | 4 | 0 | 09 | 3 | 6 | |
| 3/25 | 18.8° | 159.2° | 0600 | 98 | 07 | 14 | 02 | 1 | 1019.6 | 1 | 1.3 | 77.1 | 70.3 | 76.1 | 2 | 2 | 1 | 5 | 0 | 0 | 09 | 3 | 6 | |
| 3/25 | 19.3° | 158.6° | 1200 | 98 | 09 | 16 | 03 | 0 | 1020.3 | 6 | 0.6 | 75.8 | 71.0 | 76.1 | 4 | 4 | 1 | 5 | 0 | 0 | 09 | 3 | 7 | |
| 3/25 | 20.0° | 157.8° | 1800 | 98 | 07 | 17 | 80 | 2 | 1021.0 | 0 | 0.6 | 74.9 | 70.6 | 75.1 | 6 | 6 | 4 | 5 | 0 | 0 | 07 | 3 | 8 | |
| 3/26 | 20.3° | 157.3° | 0000 | 98 | 08 | 24 | 03 | 1 | 1020.0 | 7 | 2.0 | 77.5 | 71.8 | 75.0 | 4 | 2 | 1 | 5 | 9 | 0 | 07 | 3 | 8 | |
| 3/26 | 21.5° | 155.7° | 1800 | 98 | 10 | 26 | 15 | 2 | 1023.0 | 1 | 1.8 | 74.0 | 70.4 | 74.0 | 7 | 7 | 4 | 5 | 0 | 0 | 08 | 3 | 7 | |
| 3/27 | 22.1° | 155.3° | 0000 | 98 | 11 | 26 | 03 | 1 | 1022.0 | 7 | 1.5 | 77.0 | 70.2 | 74.8 | 7 | 7 | 7 | 5 | 0 | 0 | 10 | 3 | 8 | |
| 3/27 | 22.6° | 154.6° | 0600 | 98 | 10 | 26 | 02 | 1 | 1023.0 | 2 | 1.5 | 75.6 | 68.7 | 74.5 | 2 | 2 | 7 | 5 | 0 | 0 | 09 | 3 | 8 | |
| 3/27 | 22.7° | 154.2° | 1200 | 98 | 10 | 20 | 02 | 2 | 1023.7 | 8 | 1.0 | 73.8 | 67.0 | 72.0 | 7 | 7 | 7 | 5 | 0 | 0 | 09 | 3 | 8 | |
| 3/27 | 23.3° | 153.1° | 1800 | 98 | 11 | 18 | 15 | 2 | 1025.7 | 2 | 1.4 | 74.4 | 67.4 | 72.9 | 7 | 7 | 4 | 5 | 0 | 0 | 09 | 3 | 6 | |
| 3/28 | 23.7° | 152.5° | 0000 | 98 | 12 | 22 | 01 | 1 | 1024.7 | 7 | 2.0 | 75.2 | 66.5 | 72.6 | 1 | 1 | 1 | 5 | 0 | 0 | 09 | 3 | 7 | |
| 3/28 | 24.2° | 151.5° | 0600 | 98 | 10 | 18 | 02 | 0 | 1025.7 | 2 | 2.3 | 73.9 | 66.5 | 73.8 | 1 | 1 | 1 | 5 | 0 | 0 | 09 | 3 | 5 | |
| 3/28 | 24.2° | 150.9° | 1200 | 98 | 10 | 20 | 03 | 1 | 1025.4 | 7 | 1.6 | 70.5 | 67.0 | 72.9 | 6 | 6 | 7 | 5 | 0 | 0 | 09 | 3 | 6 | |
| 3/28 | 24.2° | 150.0° | 1800 | 98 | 09 | 22 | 02 | 0 | 1025.4 | 3 | 1.0 | 71.8 | 64.3 | 71.7 | 2 | 2 | 1 | 5 | 0 | 0 | 09 | 3 | 6 | |
| 3/29 | 24.1° | 149.3° | 0000 | 98 | 11 | 21 | 01 | 0 | 1023.0 | 7 | 2.0 | 72.1 | 64.3 | 72.0 | 1 | 1 | 1 | 5 | 0 | 0 | 10 | 3 | 7 | |
| 3/29 | 24.1° | 148.8° | 0600 | 98 | 08 | 19 | 02 | 1 | 1025.1 | 1 | 1.8 | 72.5 | 65.5 | 71.7 | 6 | 6 | 1 | 5 | 0 | 0 | 10 | 3 | 5 | |
| 3/29 | 24.0° | 148.1° | 1200 | 98 | 10 | 23 | 02 | 2 | 1024.4 | 7 | 1.5 | 71.6 | 64.5 | 71.9 | 6 | 3 | 1 | 5 | 3 | 0 | 10 | 3 | 6 | |
| 3/29 | 23.7° | 147.6° | 1800 | 98 | 10 | 20 | 15 | 2 | 1025.4 | 2 | 1.4 | 71.9 | 64.8 | 71.6 | 5 | 5 | 4 | 5 | 0 | 0 | 09 | 3 | 6 | |
| 3/30 | 23.1° | 147.2° | 0000 | 98 | 08 | 20 | 21 | 2 | 1022.7 | 7 | 2.5 | 71.0 | 65.5 | 71.4 | 6 | 5 | 7 | 5 | 0 | 0 | 09 | 3 | 8 | |
| 3/30 | 22.5° | 146.7° | 0600 | 98 | 09 | 26 | 00 | 2 | 1023.0 | 3 | 1.2 | 72.2 | 66.0 | 72.0 | 5 | 5 | X | X | 0 | 0 | 10 | 3 | 8 | |
| 3/30 | 22.2° | 146.3° | 1200 | 98 | 10 | 22 | 00 | 2 | 1021.3 | 7 | 1.2 | 71.9 | 65.0 | 72.2 | 6 | 5 | 7 | 5 | 9 | 0 | 10 | 3 | 8 | |
| 3/30 | 21.6° | 145.7° | 1800 | 98 | 08 | 24 | 15 | 2 | 1022.7 | 0 | 1.5 | 72.7 | 65.9 | 72.2 | 5 | 4 | 7 | 5 | 3 | 0 | 08 | 3 | 8 | |
| 3/31 | 21.1° | 145.6° | 0000 | 98 | 10 | 20 | 02 | 2 | 1020.0 | 7 | 2.0 | 72.8 | 64.9 | 72.9 | 6 | 2 | 1 | 5 | 4 | 9 | 10 | 3 | 8 | |
| 3/31 | 20.3° | 145.5° | 0600 | 98 | 10 | 21 | 02 | 2 | 1021.0 | 1 | 1.6 | 72.6 | 65.9 | 72.8 | 6 | 2 | 1 | 5 | 4 | 9 | 10 | 3 | 8 | |
| 3/31 | 19.7° | 145.9° | 1200 | 98 | 10 | 19 | 02 | 2 | 1019.3 | 7 | 2.2 | 71.7 | 67.8 | 73.3 | 6 | 6 | 7 | 5 | 0 | 0 | 10 | 3 | 8 | |
| 3/31 | 19.0° | 146.6° | 1800 | 98 | 09 | 19 | 15 | 2 | 1019.6 | 3 | 0.5 | 74.0 | 67.1 | 73.8 | 7 | 6 | 4 | 5 | 3 | 0 | 07 | 3 | 5 | |

Table 8.--Summary of weather observations (USWB 1210-F), Hugh M. Smith cruise 51 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|-------------|--------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|--|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/1 | 18.4° | 147.2° | 0600 | 98 | 10 | 20 | 00 | 1 | 1018.0 | 2 | 1.0 | 73.1 | 69.0 | 74.0 | 2 | 2 | 1 | 5 | 0 | 0 | 09 | 3 | 4 | |
| 4/1 | 17.6° | 147.9° | 1200 | 98 | 08 | 11 | 02 | 0 | 1016.6 | 7 | 1.4 | 74.0 | 69.5 | 74.7 | 1 | 1 | 1 | 5 | 0 | 0 | 09 | 3 | 4 | |
| 4/1 | 16.7° | 148.2° | 1800 | 98 | 07 | 14 | 02 | 0 | 1018.0 | 2 | 1.0 | 75.6 | 70.7 | 74.4 | 2 | 2 | 1 | 5 | 0 | 0 | 08 | 3 | 4 | |
| 4/2 | 15.9° | 148.9° | 0000 | 98 | 07 | 20 | 02 | 0 | 1014.9 | 7 | 2.5 | 75.8 | 71.3 | 75.5 | 3 | 3 | 1 | 5 | 0 | 0 | 08 | 3 | 4 | |
| 4/2 | 15.0° | 149.5° | 0600 | 98 | 05 | 22 | 02 | 1 | 1015.2 | 2 | 0.7 | 76.7 | 71.2 | 75.9 | 2 | 2 | 1 | 5 | 0 | 0 | 07 | 3 | 4 | |
| 4/2 | 15.7° | 149.7° | 1200 | 98 | 06 | 26 | 01 | 1 | 1014.2 | 8 | 2.0 | 75.0 | 69.6 | 75.2 | 2 | 2 | 1 | 5 | 0 | 0 | 07 | 3 | 7 | |
| 4/2 | 16.4° | 150.3° | 1800 | 98 | 05 | 25 | 02 | 1 | 1016.6 | 2 | 1.5 | 75.2 | 66.5 | 75.1 | 2 | 2 | 1 | 5 | 4 | 1 | 05 | 3 | 8 | |
| 4/3 | 16.4° | 150.4° | 0000 | 98 | 06 | 29 | 15 | 1 | 1013.2 | 8 | 2.0 | 75.0 | 70.0 | 75.5 | 5 | 5 | 4 | 5 | 0 | 0 | 06 | 3 | 8 | |
| 4/3 | 17.1° | 150.8° | 0600 | 98 | 06 | 23 | 80 | 1 | 1015.6 | 0 | 2.0 | 75.5 | 70.0 | 75.4 | 2 | 2 | 4 | 5 | 0 | 0 | 06 | 3 | 8 | |
| 4/3 | 17.9° | 151.3° | 1200 | 98 | 05 | 30 | 03 | 0 | 1015.6 | 8 | 1.0 | 73.5 | 69.0 | 75.2 | 3 | 3 | 8 | 5 | 0 | 0 | 56 | 3 | 1 | |
| 4/3 | 18.6° | 151.8° | 1800 | 98 | 04 | 27 | 02 | 0 | 1018.3 | 2 | 2.0 | 72.4 | 67.0 | 74.0 | 1 | 1 | 1 | 5 | 1 | 0 | 04 | 3 | 9 | |
| 4/4 | 19.4° | 152.2° | 0000 | 98 | 06 | 23 | 03 | 0 | 1016.6 | 8 | 2.2 | 74.5 | 66.4 | 74.7 | 4 | 1 | 1 | 5 | 9 | 0 | 05 | 3 | 8 | |
| 4/4 | 20.4° | 152.7° | 0600 | 98 | 05 | 19 | 02 | 1 | 1019.0 | 1 | 2.1 | 72.7 | 64.4 | 73.9 | 2 | 2 | 1 | 5 | 0 | 0 | 04 | 3 | 7 | |
| 4/4 | 21.1° | 153.1° | 1200 | 98 | 08 | 16 | 01 | 1 | 1018.3 | 7 | 1.8 | 71.6 | 67.0 | 74.0 | 2 | 2 | 2 | 1 | 5 | 0 | 05 | 3 | 7 | |
| 4/4 | 21.8° | 153.3° | 1800 | 98 | 09 | 15 | 15 | 0 | 1015.9 | 3 | 0.7 | 73.4 | 67.0 | 73.9 | 2 | 2 | 2 | 1 | 5 | 3 | 0 | 07 | 3 | |
| 4/5 | 22.5° | 153.9° | 0600 | 98 | 11 | 14 | 18 | 2 | 1018.6 | 3 | 2.0 | 72.4 | 67.0 | 74.0 | 6 | 6 | 1 | 5 | X | X | 04 | 3 | 5 | |
| 4/5 | 23.3° | 154.5° | 1200 | 98 | 08 | 16 | 01 | 0 | 1017.6 | 7 | 1.4 | 70.5 | 66.4 | 72.0 | 2 | 2 | 1 | 5 | 0 | 0 | 05 | 3 | 5 | |
| 4/5 | 24.2° | 154.9° | 1800 | 97 | 09 | 14 | 81 | 8 | 1018.3 | 2 | 1.4 | 69.6 | 66.7 | 71.4 | 7 | 7 | 7 | 5 | 0 | 0 | 05 | 3 | 5 | |
| 4/6 | 23.8° | 155.6° | 0000 | 98 | 10 | 08 | 02 | 0 | 1015.6 | 7 | 2.5 | 72.8 | 67.7 | 73.0 | 3 | 3 | 1 | 5 | 0 | 0 | 08 | 4 | 3 | |
| 4/6 | 22.6° | 156.1° | 0600 | 98 | 14 | 14 | 00 | 1 | 1014.6 | 3 | 0.3 | 74.2 | 68.4 | 74.1 | 1 | 1 | 2 | 5 | 0 | 0 | 15 | 3 | 3 | |
| 4/6 | 22.2° | 156.6° | 1200 | 98 | 18 | 11 | 03 | 0 | 1013.9 | 8 | 1.2 | 74.3 | 69.3 | 74.0 | 2 | 2 | 1 | 5 | 0 | 0 | 15 | 3 | 3 | |

Table 9.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 44^{1/}.

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|-------------|--------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|--|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/30 | 21.7° | 158.2° | 1800 | 99 | 45 | 08 | 00 | X | 1018.0 | X | XX | 77.0 | 70.2 | 75.3 | 2 | 1 | 1 | 4 | 3 | 0 | 15 | 2 | 1 | |
| 5/1 | 22.5° | 158.4° | 0000 | 99 | 09 | 18 | 02 | 0 | 1016.6 | 7 | 1.4 | 78.2 | 71.4 | 76.0 | 3 | 1 | 2 | 5 | 3 | 1 | 08 | 2 | 3 | |
| 5/1 | 22.5° | 158.4° | 0600 | 99 | 11 | 18 | 00 | 0 | 1017.6 | 2 | 1.7 | 74.1 | 69.6 | 74.1 | 9 | 9 | X | 0 | X | X | 08 | 2 | 3 | |
| 5/1 | 23.3° | 158.4° | 1200 | 98 | 12 | 13 | 00 | 0 | 1017.3 | 7 | 1.5 | 74.0 | 69.9 | 74.2 | 2 | 9 | X | X | X | 0 | 08 | 2 | 3 | |
| 5/1 | 24.1° | 158.3° | 1800 | 99 | 12 | 16 | 01 | 1 | 1018.3 | 1 | 1.6 | 75.1 | 69.5 | 73.4 | 7 | 6 | 8 | 5 | 0 | 1 | 08 | 2 | 2 | |
| 5/2 | 24.1° | 159.2° | 0000 | 98 | 12 | 13 | 02 | 2 | 1017.3 | 7 | 1.5 | 75.3 | 69.8 | 75.0 | 5 | 2 | 2 | 5 | 3 | 1 | 09 | 2 | 3 | |
| 5/2 | 23.8° | 158.9° | 0600 | 99 | 12 | 14 | 02 | 2 | 1016.6 | 3 | 0.6 | 74.5 | 70.0 | 74.9 | 5 | 4 | 4 | 5 | 0 | 1 | 09 | 2 | 3 | |
| 5/2 | 23.2° | 160.5° | 1200 | 98 | 13 | 14 | 00 | 1 | 1016.3 | 7 | 1.2 | 75.0 | 69.6 | 75.0 | 2 | 2 | 1 | 5 | 0 | 0 | 09 | 2 | 3 | |
| 5/3 | 22.5° | 161.0° | 0000 | 99 | 10 | 05 | 02 | 0 | 1016.6 | 8 | 1.1 | 77.5 | 72.0 | 77.0 | 3 | 3 | 2 | 5 | 0 | 0 | 10 | 2 | 2 | |
| 5/3 | 22.0° | 161.2° | 0600 | 99 | 07 | 10 | 02 | 0 | 1016.9 | 3 | 1.2 | 76.8 | 70.4 | 77.5 | 3 | 2 | 2 | 5 | 0 | 1 | 10 | 3 | 2 | |
| 5/3 | 21.2° | 161.9° | 1200 | 98 | 08 | 08 | 00 | 0 | 1017.3 | 8 | 0.9 | 76.6 | 71.0 | 76.9 | 2 | 2 | 2 | 5 | 0 | 0 | 09 | 3 | 2 | |
| 5/3 | 20.6° | 162.2° | 1800 | 99 | 07 | 11 | 02 | 0 | 1016.9 | 3 | 0.6 | 76.3 | 69.9 | 77.0 | 1 | 1 | 1 | 5 | 0 | 0 | 11 | 3 | 2 | |
| 5/4 | 19.8° | 161.8° | 0000 | 99 | 07 | 11 | 02 | 0 | 1016.9 | 8 | 1.2 | 79.0 | 71.4 | 78.6 | 1 | 1 | 1 | 5 | 0 | 0 | 12 | 3 | 3 | |
| 5/4 | 19.6° | 162.1° | 0600 | 99 | 07 | 10 | 03 | 1 | 1016.6 | 3 | 1.0 | 77.0 | 71.2 | 78.0 | 5 | 4 | 2 | 5 | 6 | 0 | 07 | 3 | 3 | |
| 5/4 | 19.3° | 161.3° | 1200 | 98 | 11 | 09 | 03 | 2 | 1015.6 | 7 | 1.5 | 76.9 | 70.2 | 77.2 | 7 | 3 | 2 | 5 | 5 | 0 | 07 | 3 | 3 | |
| 5/4 | 19.2° | 160.8° | 1800 | 98 | 09 | 08 | 15 | 2 | 1016.9 | 3 | 1.4 | 75.8 | 68.6 | 77.5 | 7 | 4 | 8 | 5 | 6 | 0 | 09 | 2 | 2 | |
| 5/5 | 19.1° | 160.9° | 0000 | 99 | 08 | 16 | 01 | 2 | 1015.2 | 7 | 1.8 | 78.8 | 71.1 | 77.8 | 1 | 1 | 1 | 5 | 0 | 0 | 08 | 2 | 3 | |
| 5/5 | 19.6° | 160.2° | 0600 | 99 | 08 | 12 | 03 | 0 | 1016.3 | 2 | 1.8 | 77.8 | 71.3 | 77.8 | 4 | 4 | 2 | 5 | 0 | 0 | 08 | 2 | 3 | |
| 5/5 | 20.0° | 159.5° | 1200 | 98 | 10 | 14 | 00 | 2 | 1015.9 | 8 | 1.5 | 77.0 | 71.0 | 77.1 | 8 | X | X | X | X | X | XX | X | 3 | |
| 5/5 | 20.5° | 158.8 | 1800 | 98 | 08 | 14 | 01 | 2 | 1016.6 | 3 | 0.8 | 76.2 | 69.9 | 76.9 | 6 | 6 | 2 | 5 | 0 | 0 | 08 | 3 | 4 | |

1/ All columns in USWB 1210-F are not included here. Those deleted are:

- | | | |
|--------|----|------------------------|
| Column | 2 | Day of week |
| " | 3 | Octant |
| " | 13 | Barometer as read |
| " | 14 | Barometer as corrected |
| " | 17 | Air temperature, °F. |
| " | 23 | Course of ship |
| " | 24 | Speed of ship |
| " | 31 | Diff. sea-air, °F. |
| " | 32 | Dew point, °F. |

Table 9.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 44 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | Temperature (° F.) | | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|--------------------|----------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 5/6 | 20.8° | 158.1° | 0000 | 98 | 07 18 | 03 | 0 | 0 | 1016.3 | 8 | 1.2 | 78.5 | 71.4 | 77.0 | 4 | 4 | 2 | 5 | 0 | 0 | 06 | 3 | 4 |
| 5/7 | 21.3° | 157.7° | 0000 | 98 | 06 19 | 00 | 1 | 1 | 1017.6 | 7 | 1.0 | 78.0 | 71.5 | 75.9 | 4 | 4 | 2 | 5 | 0 | 0 | 06 | 2 | 4 |
| 5/7 | 22.0° | 157.1° | 0600 | 98 | 08 25 | 01 | 1 | 1 | 1019.0 | 3 | 2.0 | 75.6 | 71.0 | 74.3 | 2 | 2 | 2 | 5 | 0 | 0 | 06 | 2 | 4 |
| 5/7 | 22.5° | 156.6° | 1200 | 98 | 08 22 | 02 | 0 | 0 | 1019.6 | 8 | 0.8 | 75.6 | 70.0 | 74.4 | 2 | 2 | 2 | 5 | 0 | 0 | 06 | 2 | 4 |
| 5/7 | 23.0° | 156.1° | 1800 | 97 | 07 23 | 50 | 2 | 1.0 | 1020.7 | 2 | 1.0 | 73.2 | 69.3 | 73.5 | 7 | 7 | 7 | 4 | 0 | 0 | 06 | 2 | 4 |
| 5/8 | 23.5° | 155.5° | 0000 | 98 | 06 22 | 02 | 1 | 1 | 1021.3 | 8 | 0.8 | 77.1 | 69.3 | 74.7 | 3 | 3 | 2 | 5 | 0 | 0 | 07 | 2 | 5 |
| 5/8 | 23.4° | 154.7° | 0600 | 98 | 05 22 | 02 | 0 | 0 | 1022.0 | 3 | 1.4 | 73.2 | 69.0 | 75.0 | 2 | 2 | 2 | 5 | 0 | 0 | 07 | 3 | 5 |
| 5/8 | 23.4° | 154.1° | 1200 | 98 | 06 21 | 02 | 0 | 0 | 1021.7 | 8 | 1.3 | 75.4 | 69.2 | 74.8 | 2 | 2 | 2 | 5 | 0 | 0 | 07 | 3 | 5 |
| 5/8 | 23.9° | 153.5° | 1800 | 98 | 07 22 | 15 | 0 | 0 | 1023.4 | 2 | 1.6 | 74.4 | 68.7 | 74.6 | 4 | 4 | 2 | 4 | 0 | 0 | 06 | 3 | 5 |
| 5/9 | 24.5° | 152.9° | 0000 | 98 | 06 18 | 02 | 1 | 1 | 1023.0 | 7 | 0.8 | 73.7 | 65.4 | 74.1 | 4 | 4 | 2 | 4 | 0 | 0 | 07 | 3 | 7 |
| 5/9 | 24.5° | 152.0° | 0600 | 98 | 05 24 | 00 | X | X | 1022.0 | 3 | 0.8 | 69.9 | 65.2 | 72.9 | 9 | 9 | X | X | X | X | 07 | 3 | 6 |
| 5/9 | 23.9° | 151.5° | 1200 | 98 | 04 22 | 00 | X | X | 1021.3 | 7 | 2.0 | 69.7 | 59.3 | 73.0 | 5 | 3 | 2 | 4 | 5 | X | XX | X | 6 |
| 5/9 | 23.0° | 151.8° | 1800 | 98 | 04 14 | 02 | 0 | 0 | 1021.0 | 2 | 0.8 | 71.4 | 63.5 | 74.0 | 2 | 1 | 2 | 5 | 4 | 0 | 07 | 3 | 4 |
| 5/10 | 22.3° | 151.2° | 0000 | 98 | 07 15 | 15 | 2 | 0 | 1019.0 | 7 | 1.8 | 71.4 | 65.7 | 73.6 | 7 | 7 | 4 | 5 | 0 | 0 | 06 | 3 | 5 |
| 5/10 | 21.6° | 150.7° | 0600 | 98 | 10 10 | 00 | 0 | 0 | 1018.6 | 3 | 0.6 | 72.0 | 65.6 | 74.1 | 9 | 9 | X | X | X | X | 06 | 2 | 4 |
| 5/10 | 21.0° | 150.2° | 1200 | 98 | 04 15 | 00 | 0 | 0 | 1016.6 | 7 | 2.0 | 72.7 | 67.8 | 74.6 | 1 | 1 | 2 | 5 | 0 | 0 | 06 | 2 | 4 |
| 5/10 | 20.3° | 150.1° | 1800 | 98 | 05 15 | 15 | 2 | 0 | 1016.9 | 1 | 1.0 | 73.4 | 67.6 | 74.5 | 7 | 3 | 4 | 5 | 6 | 8 | 05 | 2 | 3 |
| 5/11 | 19.7° | 150.4° | 0000 | 98 | 07 16 | 15 | 2 | 0 | 1015.6 | 7 | 1.5 | 74.8 | 67.9 | 75.8 | 7 | 2 | 4 | 5 | 6 | 1 | 07 | 2 | 3 |
| 5/11 | 19.1° | 150.9° | 0600 | 98 | 05 15 | 01 | 1 | 1 | 1014.9 | 2 | 0.7 | 73.7 | 66.6 | 75.8 | 1 | 1 | 2 | 5 | 0 | 0 | 06 | 2 | 3 |
| 5/11 | 18.4° | 151.5° | 1200 | 98 | 05 16 | 00 | X | X | 1013.5 | 7 | 1.8 | 74.7 | 68.9 | 75.7 | 7 | 2 | 2 | 5 | 6 | X | XX | X | 3 |
| 5/11 | 17.4° | 151.5° | 1800 | 98 | 05 14 | 15 | 2 | 0 | 1013.9 | 3 | 1.0 | 73.7 | 65.9 | 75.7 | 7 | 5 | 2 | 5 | 6 | 1 | 04 | 2 | 3 |
| 5/12 | 17.4° | 151.5° | 0000 | 99 | 04 16 | 02 | 2 | 0 | 1012.2 | 7 | 2.0 | 76.5 | 69.5 | 76.0 | 6 | 2 | 2 | 5 | 6 | 1 | 05 | 2 | 3 |
| 5/12 | 16.6° | 151.8° | 0600 | 98 | 03 19 | 01 | 2 | 0 | 1012.9 | 3 | 1.0 | 75.2 | 67.8 | 76.8 | 5 | 9 | X | X | X | X | 04 | 2 | 3 |
| 5/12 | 15.9° | 152.3° | 1200 | 98 | 05 19 | 00 | 2 | 0 | 1011.5 | 6 | 1.8 | 75.7 | 68.7 | 77.4 | 6 | 2 | 2 | 5 | 6 | X | 04 | 2 | 3 |
| 5/12 | 16.7° | 152.7° | 1800 | 98 | 04 17 | 01 | 2 | 0 | 1012.9 | 1 | 1.2 | 74.8 | 67.2 | 76.5 | 7 | 2 | 4 | 5 | 4 | 0 | 03 | 2 | 4 |
| 5/13 | 17.3° | 153.0° | 0000 | 99 | 05 17 | 01 | 0 | 0 | 1012.9 | 7 | 1.0 | 75.6 | 68.8 | 76.5 | 1 | 1 | 1 | 5 | 0 | 0 | 04 | 2 | 4 |
| 5/13 | 18.2° | 153.3° | 0600 | 99 | 06 16 | 03 | 1 | 0 | 1014.9 | 2 | 2.0 | 74.6 | 68.8 | 75.4 | 5 | 9 | X | X | X | X | 05 | 2 | 4 |
| 5/13 | 18.9° | 153.6° | 1200 | 98 | 10 12 | 00 | 5 | 0 | 1015.9 | 8 | 0.8 | 74.6 | 68.5 | 76.0 | 2 | 2 | 1 | 5 | X | X | 04 | 2 | 3 |
| 5/13 | 19.6° | 153.8° | 1800 | 98 | 08 13 | 15 | 8 | 0 | 1017.6 | 2 | 2.0 | 75.2 | 67.0 | 75.4 | 5 | 3 | 2 | 5 | 4 | 0 | 05 | 2 | 3 |
| 5/14 | 20.4° | 154.0° | 0000 | 98 | 06 16 | 03 | 2 | 0 | 1016.9 | 8 | 0.7 | 74.7 | 70.2 | 75.8 | 7 | 7 | 1 | 4 | 6 | 0 | 04 | 2 | 3 |
| 5/14 | 21.1° | 154.2° | 0600 | 98 | 07 15 | 02 | 2 | 0 | 1018.6 | 2 | 1.5 | 74.0 | 67.8 | 74.8 | 6 | 2 | 2 | 5 | 3 | 0 | 05 | 2 | 3 |
| 5/15 | 22.5° | 154.5° | 0000 | 98 | 08 15 | 02 | 1 | 0 | 1020.7 | 8 | 1.2 | 75.0 | 69.2 | 75.3 | 3 | 3 | 2 | 5 | 0 | 0 | 06 | 2 | 4 |
| 5/15 | 23.0° | 154.3° | 0600 | 98 | 09 16 | 15 | 1 | 0 | 1020.3 | 3 | 1.0 | 74.4 | 68.8 | 75.0 | 5 | 4 | 2 | 5 | 4 | 0 | 06 | 2 | 4 |
| 5/15 | 24.0° | 154.4° | 1800 | 98 | 07 20 | 25 | 6 | 0 | 1021.0 | 2 | 1.5 | 72.6 | 68.6 | 74.8 | 6 | 4 | 4 | 4 | 3 | 0 | 07 | 2 | 4 |
| 5/16 | 24.0° | 115.2° | 0000 | 98 | 08 18 | 02 | 0 | 0 | 1020.0 | 7 | 1.2 | 74.2 | 68.6 | 75.0 | 4 | 4 | 2 | 5 | 0 | 0 | 11 | 2 | 4 |

Table 9.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 44 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | Temperature (° F.) | | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|--------------------|----------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 5/16 | 23.2° | 154.6° | 0600 | 98 | 09 | 20 | 02 | 0 | 1020.0 | 3 | 1.2 | 74.3 | 68.8 | 74.9 | 2 | 2 | 2 | 5 | 0 | 0 | 09 | 2 | 4 |
| 5/16 | 22.5° | 155.0° | 1200 | 98 | 08 | 20 | 02 | 0 | 1018.6 | 7 | 2.0 | 74.5 | 70.0 | 75.5 | 4 | 2 | 2 | 5 | 6 | 0 | 09 | 2 | 4 |
| 5/16 | 21.8° | 155.4° | 1800 | 97 | 11 | 21 | 81 | 8 | 1019.3 | 3 | 1.0 | 72.8 | 68.7 | 73.5 | 8 | 6 | 4 | 4 | 7 | 8 | 09 | 2 | 4 |
| 5/17 | 20.8° | 155.8° | 0000 | 98 | 09 | 17 | 15 | 0 | 1017.3 | 7 | 1.0 | 75.3 | 70.6 | 74.8 | 3 | 2 | 4 | 4 | 4 | 10 | 2 | 4 | 4 |
| 5/17 | 20.1° | 156.2° | 0600 | 98 | 04 | 21 | 03 | 1 | 1015.9 | 5 | 0.0 | 76.3 | 68.8 | 77.0 | 6 | 1 | 2 | 5 | 3 | 0 | 04 | 2 | 4 |
| 5/17 | 19.5° | 156.6° | 1200 | 98 | 32 | 03 | 02 | 2 | 1015.2 | 6 | 1.0 | 77.5 | 70.9 | 76.6 | 3 | 1 | 2 | 5 | 3 | 0 | XX | X | 3 |
| 5/17 | 18.5° | 157.3° | 1800 | 98 | 10 | 18 | 03 | 1 | 1016.6 | 3 | 1.4 | 77.8 | 71.2 | 76.5 | 7 | 1 | 2 | 5 | 3 | 8 | 10 | 3 | 4 |
| 5/18 | 17.8° | 157.8° | 0000 | 98 | 10 | 22 | 15 | 2 | 1015.2 | 6 | 2.0 | 77.7 | 73.0 | 77.3 | 7 | 2 | 7 | 5 | 3 | 8 | 09 | 3 | 4 |
| 5/18 | 18.4° | 158.0° | 0600 | 98 | 10 | 18 | 01 | 1 | 1016.3 | 2 | 1.4 | 76.6 | 72.3 | 76.9 | 3 | 1 | 2 | 5 | 3 | 9 | 07 | 3 | 4 |
| 5/18 | 19.2° | 157.9° | 1200 | 98 | 10 | 13 | 00 | 2 | 1015.9 | 7 | 1.2 | 76.8 | 71.9 | 76.8 | 7 | 2 | 2 | 5 | 3 | X | 07 | 3 | 3 |
| 5/18 | 20.0° | 158.0° | 1800 | 98 | 10 | 14 | 15 | 2 | 1017.6 | 2 | 1.4 | 76.0 | 72.4 | 76.8 | 5 | 2 | 4 | 5 | 6 | 0 | 08 | 2 | 3 |
| 5/19 | 21.0° | 157.9° | 0000 | 98 | 05 | 07 | 02 | 1 | 1017.3 | 7 | 1.0 | 77.8 | 72.4 | 77.8 | 3 | 3 | 2 | 5 | 0 | 0 | 05 | 2 | 3 |
| 5/21 | 21.0° | 158.4° | 0000 | 98 | 20 | 07 | 02 | 2 | 1014.9 | 8 | 1.0 | 77.0 | 72.0 | 77.9 | 7 | 1 | 2 | 5 | 6 | 0 | 18 | 3 | 2 |
| 5/21 | 20.5° | 158.7° | 0600 | 98 | 17 | 06 | 02 | 2 | 1014.9 | 2 | 1.0 | 76.4 | 71.8 | 77.3 | 6 | 3 | 2 | 5 | 0 | 2 | 17 | 3 | 2 |
| 5/21 | 19.6° | 159.2° | 1200 | 98 | 19 | 06 | 02 | 0 | 1014.2 | 7 | 1.5 | 76.1 | 71.0 | 77.8 | 3 | 1 | 2 | 5 | 6 | 0 | 16 | 3 | 2 |
| 5/21 | 19.1° | 159.7° | 1800 | 98 | 13 | 07 | 02 | 0 | 1014.9 | 2 | 1.2 | 76.8 | 71.0 | 78.2 | 2 | 1 | 2 | 5 | 0 | 1 | 13 | 3 | 2 |
| 5/22 | 18.6° | 160.4° | 0000 | 99 | 07 | 04 | 02 | 0 | 1015.2 | 8 | 1.0 | 79.1 | 71.2 | 80.6 | 2 | 2 | 2 | 5 | 0 | 0 | 14 | 3 | 2 |
| 5/22 | 18.0° | 161.0° | 0600 | 99 | 13 | 06 | 02 | 0 | 1014.2 | 3 | 0.8 | 77.5 | 71.8 | 78.9 | 1 | 1 | 2 | 5 | 6 | 0 | 14 | 3 | 2 |
| 5/22 | 18.8° | 161.0° | 1200 | 99 | 00 | 11 | 02 | 0 | 1014.6 | 8 | 1.7 | 74.9 | 71.8 | 78.0 | 2 | 1 | 2 | 5 | 6 | 0 | 33 | 3 | 2 |
| 5/22 | 19.5° | 161.1° | 1800 | 97 | 02 | 19 | 15 | 8 | 1014.9 | 3 | 1.0 | 74.0 | 70.0 | 77.2 | 8 | 8 | 5 | 4 | X | X | 35 | 3 | 3 |
| 5/23 | 20.3° | 161.1° | 0000 | 97 | 04 | 17 | 02 | 2 | 1014.6 | 8 | 0.8 | 75.8 | 67.8 | 77.8 | 6 | 2 | 5 | 4 | 6 | 0 | 02 | 3 | 4 |
| 5/23 | 21.1° | 161.1° | 0600 | 98 | 05 | 17 | 01 | 2 | 1014.9 | 2 | 1.0 | 74.2 | 65.8 | 77.4 | 6 | 6 | 5 | 4 | 0 | 0 | 36 | 3 | 5 |
| 5/23 | 21.8° | 161.0° | 1200 | 98 | 03 | 10 | 00 | 2 | 1015.6 | 8 | 1.0 | 73.0 | 64.5 | 75.4 | 6 | 2 | 5 | 4 | 6 | 0 | 02 | 3 | 5 |
| 5/24 | 23.1° | 160.6° | 0000 | 98 | 03 | 12 | 02 | 2 | 1015.6 | 6 | 1.0 | 73.5 | 64.7 | 75.4 | 6 | 4 | 5 | 4 | 6 | 0 | 36 | 3 | 3 |
| 5/24 | 23.1° | 161.2° | 0600 | 98 | 04 | 11 | 15 | 2 | 1015.6 | 2 | 1.0 | 72.0 | 64.6 | 76.2 | 8 | 8 | 4 | 5 | 0 | 0 | 02 | 4 | 5 |
| 5/24 | 23.8° | 161.1° | 1200 | 98 | 32 | 08 | 25 | 8 | 1015.6 | 7 | 0.9 | 69.0 | 64.5 | 74.8 | 2 | 2 | 2 | 5 | 0 | 0 | 02 | 4 | 5 |
| 5/24 | 24.8° | 161.2° | 1800 | 97 | 03 | 07 | 15 | 2 | 1016.6 | 2 | 1.0 | 68.0 | 63.5 | 74.1 | 7 | 5 | 4 | 5 | 7 | 0 | 01 | 2 | 3 |
| 5/25 | 24.3° | 160.5° | 0000 | 98 | 06 | 06 | 02 | 0 | 1016.9 | 8 | 0.4 | 72.0 | 64.7 | 76.1 | 2 | 2 | 2 | 5 | 0 | 0 | 01 | 3 | 5 |
| 5/25 | 23.8° | 159.7° | 0600 | 98 | 07 | 09 | 03 | 2 | 1016.9 | 3 | 1.0 | 72.3 | 63.8 | 76.0 | 8 | 8 | 4 | 5 | X | X | 02 | 3 | 3 |
| 5/25 | 23.3° | 159.2° | 1200 | 97 | 10 | 10 | 00 | 1 | 1016.3 | 8 | 1.5 | 73.1 | 66.5 | 75.2 | 7 | 1 | 2 | 5 | 6 | 0 | 02 | 3 | 3 |
| 5/25 | 22.5° | 158.3° | 1800 | 98 | 07 | 12 | 80 | 8 | 1016.9 | 3 | 0.8 | 73.0 | 67.4 | 74.4 | 7 | 7 | 4 | 5 | 0 | 0 | 09 | 2 | 3 |
| 5/26 | 21.8° | 157.8° | 0000 | 98 | 09 | 10 | 02 | 1 | 1015.9 | 7 | 1.0 | 76.0 | 71.6 | 76.0 | 3 | 2 | 2 | 5 | 6 | 0 | 10 | 2 | 3 |
| 5/27 | 22.0° | 156.9° | 0600 | 98 | 12 | 13 | 01 | 2 | 1015.9 | 2 | 1.4 | 75.2 | 71.6 | 75.1 | 5 | 2 | 4 | 5 | 3 | 1 | 11 | 2 | 3 |
| 5/27 | 22.4° | 156.3° | 1200 | 98 | 14 | 17 | 00 | 2 | 1016.3 | 7 | 1.2 | 74.9 | 70.8 | 75.1 | 2 | 1 | 4 | 5 | 3 | X | 12 | 2 | 3 |
| 5/27 | 23.2° | 155.5° | 1800 | 98 | 14 | 09 | 03 | 2 | 1018.0 | 2 | 1.2 | 75.8 | 70.0 | 76.2 | 8 | 3 | 2 | 5 | 0 | 4 | 12 | 2 | 3 |

Table 9.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 44 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|-------------|--------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 5/28 | 23.8° | 154.6° | 0000 | 98 | 13 | 12 | 02 | 2 | 1017.3 | 7 | 0.8 | 75.9 | 70.0 | 76.6 | 6 | 4 | 2 | 5 | 2 | 4 | 11 | 2 | 3 |
| 5/28 | 24.4° | 153.7° | 0600 | 98 | 12 | 11 | 03 | 2 | 1018.6 | 3 | 1.5 | 74.8 | 68.5 | 75.0 | 5 | 2 | 4 | 5 | X | X | 11 | 2 | 3 |
| 5/28 | 24.8° | 153.0° | 1200 | 98 | 12 | 10 | 00 | 2 | 1018.3 | 7 | 1.0 | 73.5 | 68.9 | 74.9 | 2 | 2 | 4 | 5 | X | X | 11 | 2 | 3 |
| 5/28 | 23.0° | 153.0° | 1800 | 98 | 11 | 10 | 03 | 1 | 1019.0 | 1 | 1.0 | 74.5 | 69.2 | 76.0 | 7 | 1 | 2 | 5 | 7 | 7 | 13 | 2 | 3 |
| 5/29 | 23.2° | 152.8° | 0000 | 98 | 12 | 12 | 15 | 2 | 1018.3 | 7 | 1.0 | 75.6 | 70.0 | 76.0 | 7 | 1 | 2 | 5 | 7 | 7 | 13 | 2 | 3 |
| 5/29 | 22.0° | 152.7° | 0600 | 98 | 14 | 09 | 01 | 1 | 1018.6 | 3 | 1.0 | 75.0 | 69.0 | 75.2 | 1 | 9 | X | 0 | X | X | 11 | 2 | 3 |
| 5/29 | 21.3° | 152.8° | 1200 | 98 | 08 | 17 | 00 | 2 | 1017.3 | 7 | 2.0 | 75.1 | 70.7 | 75.7 | 7 | 1 | 2 | 5 | X | X | 09 | 2 | 3 |
| 5/29 | 20.4° | 152.7° | 1800 | 98 | 08 | 20 | 15 | 8 | 1017.6 | 3 | 1.0 | 75.2 | 72.1 | 77.0 | 6 | 5 | 4 | 4 | 0 | 1 | 10 | 2 | 4 |
| 5/30 | 19.3° | 153.0° | 0000 | 98 | 07 | 19 | 15 | 8 | 1016.3 | 7 | 1.2 | 77.2 | 73.1 | 77.4 | 3 | 3 | 2 | 4 | 0 | 0 | 11 | 2 | 4 |
| 5/30 | 18.4° | 152.1° | 0600 | 98 | 09 | 18 | 00 | 8 | 1016.9 | 2 | 1.0 | 76.6 | 72.8 | 77.0 | 9 | 9 | X | 0 | X | X | 09 | 2 | 4 |
| 5/30 | 17.5° | 153.0° | 1200 | 98 | 07 | 19 | 00 | 1 | 1015.6 | 6 | 1.5 | 76.2 | 71.5 | 77.2 | 1 | 1 | 2 | 4 | 0 | 0 | 10 | 2 | 4 |
| 5/30 | 17.3° | 153.8° | 1800 | 98 | 07 | 16 | 01 | 0 | 1016.6 | 2 | 1.6 | 76.6 | 70.2 | 77.5 | 2 | 1 | 2 | 4 | 0 | 1 | 09 | 2 | 4 |
| 5/31 | 17.6° | 154.3° | 0000 | 98 | 05 | 15 | 02 | 0 | 1015.2 | 7 | 1.3 | 77.1 | 70.3 | 77.6 | 2 | 2 | 2 | 4 | 0 | 0 | 08 | 2 | 5 |
| 5/31 | 17.8° | 155.2° | 0600 | 97 | 06 | 17 | 02 | 0 | 1015.9 | 2 | 1.0 | 76.3 | 70.5 | 77.3 | 2 | 2 | 2 | 4 | 0 | 0 | 05 | 2 | 4 |
| 6/1 | 20.4° | 156.6° | 0600 | 98 | 07 | 18 | 03 | 0 | 1015.9 | 2 | 2.0 | 75.4 | 70.0 | 76.5 | 2 | 1 | 2 | 0 | 0 | 2 | 06 | 2 | 4 |
| 6/1 | 20.9° | 157.5° | 1200 | 98 | 08 | 19 | 00 | 0 | 1015.9 | 7 | 0.4 | 75.2 | 70.0 | 77.1 | 1 | 1 | X | X | 0 | 0 | XX | X | 3 |

Table 10.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 45^{1/}

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|--------------------|----------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 7/10 | 21.1° | 157.8° | 0000 | 99 | 11 | 10 | 01 | 0 | 1016.3 | 8 | 1.0 | 77.5 | 71.8 | 78.6 | 1 | 1 | 8 | 6 | 1 | 0 | 04 | 3 | 2 |
| 7/10 | 21.1° | 157.8° | 0600 | 98 | 06 | 17 | 02 | 0 | 1016.3 | 2 | 1.0 | 76.8 | 72.4 | 78.6 | 2 | 1 | 1 | 6 | 1 | 0 | 06 | 3 | 2 |
| 7/10 | 21.2° | 157.7° | 1800 | 99 | 09 | 10 | 03 | 2 | 1018.0 | 2 | 1.9 | 77.9 | 73.4 | 78.0 | 7 | 6 | 8 | 6 | 1 | 0 | 08 | 3 | 2 |
| 7/13 | 21.5° | 158.2° | 1800 | 99 | 30 | 01 | 00 | 0 | 1018.3 | 3 | 1.0 | 78.4 | 71.0 | 78.9 | 1 | 0 | 0 | 9 | 6 | 0 | 16 | 3 | 0 |
| 7/14 | 21.2° | 158.2° | 0000 | 99 | 03 | 02 | 03 | 0 | 1017.3 | 8 | 1.4 | 81.7 | 73.1 | 79.9 | 1 | 1 | 2 | 6 | 0 | 1 | 08 | 3 | 0 |
| 7/14 | 21.3° | 157.9° | 1800 | 99 | 05 | 15 | 00 | 2 | 1017.3 | 2 | 1.5 | 79.1 | 73.0 | 78.2 | 6 | 5 | 8 | 6 | 2 | 0 | 12 | 3 | 2 |
| 7/18 | 20.5° | 158.3° | 0000 | 99 | 06 | 18 | 03 | 1 | 1015.2 | 7 | 1.4 | 79.2 | 75.2 | 79.4 | 5 | 5 | 4 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/18 | 20.3° | 158.9° | 0600 | XX | 04 | 09 | 01 | 1 | 1015.6 | 2 | 1.4 | 80.1 | 74.9 | 79.2 | 4 | 4 | 4 | 6 | 0 | 0 | 07 | 3 | 2 |
| 7/18 | 19.6° | 159.5° | 1200 | 96 | 08 | 11 | 02 | 1 | 1015.2 | 7 | 1.4 | 78.5 | 75.6 | 78.5 | 4 | 4 | 4 | 6 | 0 | 0 | 07 | 3 | 2 |
| 7/18 | 19.0° | 160.0° | 1800 | 98 | 09 | 17 | 01 | 0 | 1018.3 | 3 | 1.6 | 79.8 | 75.3 | 78.6 | 3 | 1 | 2 | 6 | 0 | 4 | 10 | 3 | 3 |
| 7/19 | 18.4° | 160.6° | 0000 | 98 | 11 | 13 | 02 | 2 | 1013.9 | 7 | 1.9 | 80.0 | 75.3 | 79.1 | 6 | 6 | 2 | 6 | 0 | 0 | 11 | 3 | 2 |
| 7/19 | 18.2° | 162.3° | 0600 | 98 | 08 | 13 | 01 | 1 | 1013.9 | 2 | 1.2 | 80.0 | 75.3 | 79.8 | 1 | 1 | 4 | 6 | 0 | 0 | 08 | 3 | 2 |
| 7/19 | 18.7° | 161.8° | 1200 | 94 | 08 | 17 | 02 | 2 | 1014.2 | 8 | 1.0 | 78.9 | 74.5 | 79.5 | 5 | 5 | 1 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/19 | 19.2° | 162.3° | 1800 | 98 | 09 | 19 | 01 | 1 | 1014.6 | 3 | 0.7 | 80.0 | 74.5 | 79.4 | 1 | 1 | 4 | 6 | 0 | 0 | 05 | 3 | 3 |
| 7/19 | 19.8° | 163.1° | 0000 | 98 | 09 | 15 | 02 | 1 | 1015.2 | 7 | 1.0 | 80.0 | 74.3 | 80.0 | 4 | 4 | 4 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/20 | 20.6° | 163.6° | 0600 | 98 | 07 | 18 | 15 | 0 | 1015.2 | 2 | 1.4 | 79.9 | 75.2 | 79.9 | 4 | 4 | 1 | 6 | 0 | 0 | 07 | 3 | 3 |
| 7/20 | 21.2° | 164.1° | 1200 | 94 | 10 | 16 | 02 | 1 | 1016.3 | 7 | 1.0 | 78.8 | 74.6 | 79.0 | 4 | 4 | 2 | 6 | 0 | 0 | 09 | 3 | 3 |
| 7/20 | 21.9° | 164.8° | 1800 | 98 | 09 | 13 | 03 | 0 | 1016.6 | 3 | 0.9 | 79.3 | 74.2 | 78.5 | 3 | 3 | 2 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/21 | 22.5° | 165.4° | 0000 | 98 | 09 | 13 | 02 | 1 | 1016.9 | 7 | 0.9 | 80.0 | 74.3 | 79.6 | 4 | 4 | 2 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/21 | 23.3° | 166.1° | 0600 | 98 | 08 | 14 | 01 | 0 | 1016.6 | 2 | 1.0 | 78.9 | 72.7 | 79.6 | 1 | 1 | 1 | 6 | 0 | 0 | 09 | 3 | 2 |

1/ All columns in USWB 1210-F are not included here. Those deleted are:

- | | | |
|--------|----|------------------------|
| Column | 2 | Day of week |
| " | 3 | Octant |
| " | 13 | Barometer as read |
| " | 14 | Barometer as corrected |
| " | 17 | Air temperature, °F. |
| " | 23 | Course of ship |
| " | 24 | Speed of ship |
| " | 31 | Diff. sea-air, °F. |
| " | 32 | Dew point, °F. |

Table 10.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 45 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|------------------|----------------|--------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 7/23 | 24.2° | 165.7° | 0000 | 98 | 10 | 09 | 03 | 2 | 1016.9 | 7 | 78.9 | 73.6 | 79.1 | 7 | 1 | 2 | 5 | 1 | 6 | 10 | 3 | 3 |
| 7/23 | 24.5° | 165.1° | 0600 | 98 | 10 | 09 | 02 | 2 | 1016.9 | 2 | 78.4 | 75.0 | 78.8 | 7 | 2 | 2 | 5 | 1 | 5 | 09 | 3 | 3 |
| 7/23 | 24.8° | 164.0° | 1200 | 98 | 07 | 09 | 01 | 0 | 1016.6 | 6 | 75.6 | 72.3 | 79.0 | 1 | 1 | 1 | 5 | 0 | 0 | 09 | 3 | 3 |
| 7/23 | 25.1° | 163.2° | 1800 | 98 | 08 | 08 | 03 | 1 | 1017.6 | 2 | 77.0 | 72.0 | 78.5 | 4 | 4 | 2 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/24 | 25.4° | 162.1° | 0000 | 98 | 07 | 00 | 01 | 0 | 1017.3 | 7 | 80.6 | 72.3 | 81.5 | 3 | 3 | 1 | 6 | 0 | 0 | 09 | 3 | 3 |
| 7/24 | 24.6° | 161.2° | 0600 | 98 | 07 | 02 | 03 | 1 | 1017.3 | 2 | 77.5 | 72.0 | 80.0 | 6 | 6 | 2 | 5 | 0 | 0 | 09 | 3 | 3 |
| 7/24 | 25.8° | 160.8° | 1200 | 98 | 09 | 07 | 01 | 1 | 1017.3 | 6 | 76.6 | 73.0 | 78.6 | 2 | 2 | 1 | 5 | 0 | 0 | 09 | 3 | 5 |
| 7/24 | 24.8° | 160.3° | 1800 | 98 | 09 | 03 | 02 | 0 | 1018.0 | X | 75.1 | 72.0 | 78.7 | 3 | 3 | 6 | 5 | 0 | 0 | 09 | 3 | 3 |
| 7/25 | 24.0° | 159.6° | 0000 | 98 | 10 | 05 | 01 | 0 | 1018.0 | 4 | 79.7 | 71.4 | 81.2 | 1 | 1 | 2 | 6 | 0 | 0 | 11 | 3 | 3 |
| 7/25 | 23.2° | 159.0° | 0600 | 98 | 11 | 07 | 03 | 1 | 1017.3 | 4 | 80.2 | 75.0 | 80.0 | 4 | 4 | 2 | 5 | 0 | 0 | 11 | 3 | 3 |
| 7/25 | 22.5° | 163.5° | 1200 | 98 | 10 | 10 | 25 | 0 | 1016.9 | 7 | 78.8 | 74.7 | 79.0 | 4 | 4 | 1 | 5 | 0 | 0 | 10 | 3 | 3 |
| 7/25 | 22.2° | 157.6° | 1800 | 98 | 00 | 00 | 01 | 0 | 1017.3 | 2 | 80.1 | 75.1 | 78.1 | 4 | 4 | 2 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/26 | 22.5° | 157.1° | 0000 | 98 | 10 | 07 | 25 | 1 | 1016.6 | 6 | 80.0 | 75.0 | 80.3 | 7 | 1 | 2 | 6 | 0 | 6 | 04 | 3 | 3 |
| 7/26 | 22.8° | 156.3° | 0600 | 98 | 10 | 02 | 20 | 2 | 1016.9 | 2 | 79.1 | 75.0 | 79.1 | 7 | 7 | 2 | 5 | 0 | 5 | 06 | 3 | 2 |
| 7/26 | 23.3° | 155.5° | 1200 | 97 | 07 | 17 | 20 | 2 | 1016.9 | 7 | 79.1 | 75.0 | 78.8 | 7 | 7 | 2 | 4 | X | X | 05 | 3 | 4 |
| 7/26 | 23.9° | 154.8° | 1800 | 98 | 09 | 18 | 01 | 0 | 1018.3 | 2 | 77.3 | 72.8 | 77.1 | 3 | 2 | 4 | 6 | 2 | 0 | 08 | 3 | 3 |
| 7/27 | 24.6° | 154.2° | 0000 | 98 | 06 | 09 | 02 | 0 | 1018.3 | 4 | 79.2 | 72.5 | 78.0 | 4 | 4 | 2 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/27 | 25.4° | 153.5° | 0600 | 95 | 08 | 15 | 02 | 2 | 1019.0 | 2 | 77.1 | 70.8 | 77.3 | 6 | 6 | 4 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/27 | 25.9° | 153.0° | 1200 | 97 | 10 | 16 | 01 | 2 | 1019.0 | 7 | 77.4 | 70.5 | 77.2 | 5 | 5 | 2 | 6 | 0 | 0 | 08 | 3 | 3 |
| 7/27 | 24.9° | 152.9° | 1800 | 98 | 09 | 15 | 00 | 2 | 1019.6 | 2 | 76.3 | 71.0 | 77.1 | 6 | 5 | 8 | 6 | 0 | 1 | 08 | 3 | 3 |
| 7/28 | 23.9° | 152.9° | 0000 | 98 | 10 | 12 | 02 | 2 | 1018.6 | 7 | 78.0 | 72.1 | 77.5 | 5 | 4 | 8 | 6 | 0 | 1 | 10 | 3 | 3 |
| 7/28 | 23.0° | 152.9° | 0600 | 98 | 07 | 13 | 01 | 1 | 1018.3 | 3 | 77.2 | 72.2 | 77.6 | 3 | 3 | 8 | 6 | 0 | 0 | 10 | 3 | 2 |
| 7/28 | 22.1° | 152.9° | 1200 | 97 | 08 | 18 | 03 | 1 | 1016.9 | 7 | 77.3 | 73.1 | 78.0 | 6 | 6 | 8 | 5 | 0 | 0 | 10 | 3 | 3 |
| 7/28 | 21.1° | 152.9° | 1800 | 98 | 08 | 10 | 50 | 2 | 1016.9 | 2 | 75.2 | 74.0 | 77.7 | 6 | 6 | 8 | 5 | 0 | 0 | 10 | 3 | 2 |
| 7/29 | 20.2° | 152.9° | 0000 | 98 | 08 | 14 | 15 | 1 | 1015.6 | 7 | 79.5 | 74.5 | 78.4 | 4 | 4 | 8 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/29 | 19.1° | 152.9° | 0600 | 95 | 08 | 14 | 02 | 0 | 1015.2 | 3 | 77.9 | 74.3 | 77.9 | 3 | 3 | 8 | 5 | 0 | 0 | 09 | 3 | 2 |
| 7/29 | 18.4° | 152.9° | 1200 | 98 | 08 | 14 | 02 | 0 | 1013.5 | 7 | 78.0 | 75.0 | 78.0 | 4 | 4 | 8 | 5 | 0 | 0 | 08 | 3 | 2 |
| 7/29 | 17.3° | 153.0° | 1800 | 98 | 08 | 13 | 15 | 2 | 1013.9 | 2 | 78.0 | 74.8 | 78.1 | 6 | 6 | 4 | 5 | 0 | 0 | 10 | 3 | 2 |
| 7/30 | 17.0° | 153.7° | 0000 | 98 | 09 | 10 | 02 | 1 | 1013.2 | 7 | 83.0 | 75.3 | 78.8 | 4 | 4 | 8 | 6 | 0 | 0 | 09 | 3 | 2 |
| 7/30 | 16.8° | 154.7° | 0600 | 95 | 07 | 15 | 00 | 0 | 1013.2 | 3 | 79.5 | 74.5 | 78.6 | 3 | 3 | 8 | 6 | 0 | 0 | 09 | 3 | 2 |
| 7/30 | 17.0° | 155.6° | 1200 | 95 | 05 | 13 | 02 | 0 | 1012.9 | 7 | 78.9 | 74.9 | 78.4 | 2 | 2 | 8 | 6 | 0 | 0 | 09 | 3 | 2 |
| 7/30 | 17.4° | 156.2° | 1800 | 98 | 08 | 14 | 03 | 1 | 1013.9 | 2 | 79.4 | 75.0 | 78.5 | 5 | 5 | 1 | 5 | 0 | 0 | 08 | 3 | 2 |
| 7/31 | 18.4° | 156.7° | 0000 | 98 | 09 | 13 | 03 | 2 | 1013.2 | 8 | 78.9 | 74.2 | 79.4 | 6 | 1 | 4 | 5 | 0 | 4 | 09 | 3 | 2 |
| 7/31 | 19.3° | 157.2° | 0600 | 97 | 02 | 08 | 15 | 1 | 1013.9 | 2 | 81.5 | 75.4 | 80.8 | 3 | 3 | 2 | 6 | 0 | 0 | 06 | 2 | 2 |
| 7/31 | 20.2° | 157.5° | 1200 | 95 | 07 | 14 | 01 | 0 | 1013.5 | X | 80.3 | 75.6 | 80.2 | 2 | 2 | 2 | X | 0 | 0 | 08 | 2 | 2 |

Table 10.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 45 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 8/3 | 21.3° | 158.3° | 0000 | 98 | 08 | 11 | 00 | 1 | 1014.6 | 8 | 1.6 | 84.1 | 74.3 | 81.0 | 4 | 4 | 1 | 6 | 0 | 0 | 12 | 2 | 2 |
| 8/4 | 21.2° | 158.4° | 0000 | 99 | 07 | 13 | 03 | 1 | 1013.9 | 8 | 1.5 | 80.7 | 75.7 | 80.5 | 7 | 7 | 1 | 6 | 0 | 0 | 07 | 2 | 3 |
| 8/4 | 21.3° | 158.2° | 0600 | 98 | 09 | 10 | 01 | 0 | 1013.5 | 2 | 1.0 | 79.5 | 72.5 | 80.0 | 1 | 1 | 8 | 6 | 0 | 0 | XX | X | X |
| 8/4 | 21.1° | 158.2° | 1800 | 98 | 09 | 09 | 03 | 2 | 1014.2 | 3 | 0.9 | 80.7 | 71.1 | 80.0 | 7 | 7 | 2 | 5 | 0 | 0 | XX | X | X |
| 8/5 | 21.2° | 158.1° | 0000 | 99 | 07 | 25 | 02 | 0 | 1012.5 | 7 | 1.5 | 81.3 | 72.9 | 79.9 | 5 | 5 | 1 | 6 | 0 | 0 | 13 | 2 | 2 |
| 8/5 | 20.9° | 158.3° | 0000 | 99 | 09 | 15 | 01 | 0 | 1015.2 | 8 | 1.7 | 79.4 | 75.8 | 78.8 | 1 | 1 | 1 | 6 | 1 | 0 | 07 | 2 | 3 |
| 8/10 | 21.3° | 158.2° | 0600 | 97 | 08 | 12 | 00 | 1 | 1015.9 | 2 | 2.0 | 79.5 | 74.0 | 78.6 | 4 | 4 | 4 | 4 | 0 | 0 | XX | 0 | 0 |
| 8/10 | 21.4° | 158.2° | 1800 | 98 | 02 | 06 | 00 | X | 1016.9 | 2 | 1.0 | 80.0 | 70.4 | 78.8 | 1 | 1 | 4 | 4 | 0 | 0 | 15 | 0 | 0 |
| 8/11 | 21.2° | 158.1° | 0000 | 99 | 09 | 14 | 03 | 0 | 1015.2 | 6 | 1.6 | 80.8 | 74.6 | 79.0 | 1 | 1 | 4 | 4 | 0 | 0 | 10 | 2 | 2 |
| 8/14 | 21.5° | 157.7° | 1800 | 98 | 08 | 12 | 00 | X | 1016.6 | 2 | 1.0 | 79.3 | 73.0 | 73.4 | 4 | 4 | 4 | 4 | 0 | 0 | 09 | 2 | 2 |
| 8/15 | 21.0° | 157.2° | 0000 | 99 | 02 | 19 | 01 | 0 | 1014.9 | 7 | 1.5 | 81.3 | 73.6 | 79.4 | 2 | 1 | 1 | 4 | 4 | 0 | 04 | 2 | 2 |
| 8/17 | 21.5° | 158.3° | 0600 | 98 | 01 | 09 | 00 | X | 1012.5 | 2 | 1.0 | 79.0 | 71.5 | 79.2 | 5 | 5 | 4 | 4 | 0 | 0 | XX | X | X |
| 8/17 | 21.4° | 158.8° | 1800 | 98 | 10 | 07 | 00 | X | 1013.2 | 2 | 1.0 | 80.3 | 70.5 | 79.1 | 4 | 4 | 4 | 4 | 0 | 0 | 18 | 2 | 1 |
| 8/18 | 21.1° | 157.8° | 0000 | 98 | 06 | 15 | 02 | 0 | 1011.9 | 6 | 1.4 | 78.1 | 73.6 | 79.1 | 1 | 1 | 1 | 4 | 0 | 0 | 06 | 2 | 3 |
| 8/19 | 21.1° | 157.9° | 0000 | 98 | 03 | 15 | 01 | 0 | 1013.5 | 7 | 0.6 | 79.0 | 74.9 | 79.4 | 1 | 1 | 1 | 4 | 1 | 0 | 04 | 2 | 3 |
| 8/20 | | | 0000 | 98 | 09 | 14 | 02 | 0 | 1015.6 | 7 | 1.4 | 81.1 | 76.0 | 80.0 | 1 | 1 | 1 | 4 | 0 | 0 | 08 | 2 | 2 |
| 8/24 | 21.5° | 158.4° | 0000 | 98 | 23 | 10 | 03 | 0 | 1013.2 | 6 | 1.1 | 81.8 | 74.0 | 80.1 | 1 | 1 | 1 | 4 | 0 | 0 | 02 | 2 | 2 |
| 8/26 | 21.1° | 156.8° | 0000 | 98 | 07 | 20 | 03 | 0 | 1012.9 | 8 | 1.5 | 80.1 | 74.8 | 78.2 | 2 | 2 | 1 | 4 | 1 | 0 | 07 | 2 | 3 |
| 8/26 | 20.9° | 156.5° | 0600 | 97 | 30 | 16 | 00 | X | 1014.6 | 2 | 2.0 | 77.3 | 72.2 | 79.1 | 9 | X | X | X | X | X | XX | X | 0 |
| 8/27 | 21.0° | 156.6° | 1800 | 97 | 07 | 18 | 00 | X | 1015.2 | 4 | 0.0 | 77.9 | 72.4 | 78.4 | 5 | 4 | 4 | 4 | 0 | 1 | 08 | 2 | 3 |
| 8/28 | 20.8° | 157.0° | 0600 | 98 | 00 | 16 | 01 | 1 | 1013.2 | 2 | 1.5 | 78.0 | 70.0 | 79.0 | 1 | 1 | 4 | 4 | 0 | 0 | XX | 1 | 0 |
| 8/28 | 20.7° | 157.0° | 1800 | 98 | 14 | 06 | 00 | X | 1013.9 | 1 | 1.0 | 79.3 | 69.0 | 79.8 | 3 | 3 | 4 | 4 | 0 | 0 | 03 | 1 | 1 |
| 8/29 | 21.0° | 157.9° | 0000 | 99 | 11 | 27 | 01 | 0 | 1013.9 | 0 | 0.6 | 79.7 | 73.6 | 79.7 | 1 | 1 | 1 | 4 | 2 | 0 | 08 | 2 | 3 |
| 8/30 | 21.1° | 158.1° | 0000 | 98 | 10 | 20 | 03 | 0 | 1013.9 | 6 | 1.5 | 84.2 | 73.8 | 79.5 | 2 | 2 | 1 | 4 | 0 | 0 | 10 | 2 | 2 |
| 8/31 | 21.4° | 158.4° | 0000 | 98 | 05 | 19 | 01 | 0 | 1013.2 | 7 | 1.2 | 81.2 | 74.0 | 74.3 | 1 | 1 | 1 | 4 | 0 | 0 | 05 | 2 | 3 |
| 8/31 | 21.4° | 158.2° | 0600 | 98 | 03 | 11 | 00 | 0 | 1012.9 | 2 | 1.0 | 78.1 | 69.0 | 79.1 | 1 | 1 | 1 | 4 | 0 | 0 | XX | 0 | 0 |
| 8/31 | 21.5° | 158.3° | 1800 | 98 | 34 | 10 | 00 | 0 | 1013.5 | 2 | 0.8 | 79.3 | 70.5 | 79.0 | 1 | 1 | 4 | 4 | 0 | 0 | 34 | 1 | 1 |
| 9/1 | 21.3° | 158.1° | 0000 | 98 | 02 | 21 | 01 | 0 | 1011.5 | 7 | 1.5 | 80.1 | 73.5 | 79.4 | 1 | 1 | 1 | 4 | 0 | 0 | 12 | 2 | 4 |

Table 11.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 46¹/

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 9/17 | 21.4° | 158.3° | 0000 | 98 | 12 | 10 | 01 | 2 | 1014.2 | 7 | 2.0 | 82.3 | 73.3 | 80.2 | 3 | 3 | 1 | 6 | 1 | 0 | 15 | 3 | 2 |
| 9/18 | 21.2° | 158.0° | 1800 | 97 | 08 | 16 | 00 | X | 1014.9 | 2 | 1.0 | 80.4 | 74.6 | 79.7 | 3 | 3 | 2 | 4 | 0 | 0 | 13 | 2 | 2 |
| 9/19 | 21.4° | 158.2° | 0000 | 98 | 05 | 14 | 03 | 1 | 1014.2 | 8 | 0.9 | 81.0 | 72.8 | 80.3 | 7 | 7 | 4 | 5 | 0 | 0 | 04 | 2 | 2 |
| 9/19 | 21.2° | 157.8° | 1800 | 97 | 10 | 14 | 00 | X | 1017.3 | 2 | 1.0 | 79.1 | 73.0 | 78.4 | 7 | 3 | 2 | 4 | 1 | 0 | 13 | 2 | 2 |
| 9/20 | 21.5° | 157.8° | 0600 | 97 | 01 | 14 | 00 | 2 | 1017.6 | 2 | 1.2 | 79.0 | 71.5 | 79.1 | X | X | X | X | X | X | 01 | 2 | 0 |
| 9/20 | 21.5° | 157.8° | 1800 | 97 | 04 | 16 | 02 | 2 | 1017.6 | 2 | 1.0 | 79.2 | 72.2 | 78.5 | 6 | 6 | 1 | 4 | 0 | 0 | 04 | 2 | 0 |
| 9/21 | 21.5° | 157.7° | 0000 | 98 | 08 | 14 | 01 | 0 | 1014.6 | X | XX | 79.0 | 72.0 | 79.3 | 4 | 4 | 1 | 4 | 0 | 0 | 09 | 3 | 4 |
| 9/21 | 21.2° | 158.3° | 0600 | 97 | 30 | 08 | 00 | 1 | 1015.2 | 2 | 0.4 | 78.5 | 70.0 | 80.4 | 2 | 2 | 1 | 4 | 0 | 0 | XX | 2 | 0 |
| 9/21 | 21.7° | 158.1° | 1800 | 97 | 08 | 15 | 00 | X | 1015.2 | 2 | 1.0 | 77.0 | 72.8 | 78.9 | 6 | 6 | 1 | 4 | 0 | 0 | 04 | 2 | 3 |
| 9/22 | 21.3° | 158.2° | 0000 | 98 | 08 | 15 | 03 | 0 | 1013.2 | 7 | 2.0 | 82.7 | 72.2 | 80.4 | 3 | 3 | 1 | 4 | 0 | 0 | 08 | 2 | 3 |
| 9/22 | 21.4° | 157.8° | 1800 | 97 | 08 | 22 | 00 | 0 | 1014.6 | 2 | 1.0 | 80.8 | 74.2 | 79.2 | 3 | 1 | 2 | 4 | 4 | 0 | 13 | 2 | 3 |
| 9/23 | 20.8° | 157.2° | 0000 | 98 | 08 | 21 | 00 | 0 | 1012.9 | 8 | 2.1 | 79.8 | 74.1 | 80.1 | 1 | 1 | 2 | 4 | 1 | 1 | 10 | 2 | 4 |
| 9/23 | 20.7° | 157.0° | 0600 | 98 | 33 | 06 | 01 | 1 | 1014.6 | 2 | 1.2 | 80.0 | 71.0 | 81.0 | X | X | X | X | X | X | 33 | 2 | 0 |
| 9/23 | 20.7° | 157.0° | 1800 | 98 | 03 | 09 | 00 | X | 1014.6 | 2 | 1.0 | 80.1 | 71.6 | 79.8 | 2 | 2 | 1 | 4 | 0 | 0 | 03 | 2 | 0 |
| 9/24 | 20.9° | 157.5° | 0000 | 98 | 27 | 02 | 03 | X | 1013.2 | 8 | 1.5 | 81.1 | 72.8 | 80.9 | 6 | 6 | 4 | 4 | 0 | 0 | 02 | 2 | 2 |
| 9/25 | 21.2° | 157.8° | 1800 | 97 | 08 | 20 | 00 | X | 1015.9 | 2 | 1.0 | 80.0 | 73.0 | 79.6 | 7 | 7 | 1 | 4 | 0 | 0 | 13 | 2 | 2 |
| 9/26 | 21.2° | 158.0° | 1800 | 98 | 36 | 05 | 00 | X | 1015.9 | 2 | 1.0 | 78.6 | 73.0 | 79.8 | 3 | 3 | 4 | 4 | 0 | 0 | 20 | 2 | 1 |
| 9/27 | 21.5° | 158.3° | 0000 | 98 | 04 | 04 | 03 | 1 | 1014.6 | 8 | 1.7 | 83.4 | 73.8 | 82.2 | 6 | 5 | 4 | 4 | 2 | 0 | 16 | 2 | 1 |
| 9/30 | | | 0000 | 98 | 09 | 15 | 02 | 2 | 1013.5 | 7 | 2.1 | 80.7 | 75.6 | 80.6 | 6 | 4 | 2 | 4 | 6 | 2 | 19 | 2 | 3 |
| 9/30 | 19.8° | 157.2° | 0600 | 96 | 09 | 10 | 20 | 2 | 1015.6 | 2 | 2.0 | 77.9 | 75.0 | 80.2 | 7 | X | X | X | X | X | 09 | 2 | 2 |

1/ All columns in USWB 1210-F are not included here. Those deleted are:

- Column 2 Day of week
 " 3 Octant
 " 13 Barometer as read
 " 14 Barometer as corrected
 " 17 Air temperature, °F.
 " 23 Course of ship
 " 24 Speed of ship
 " 31 Diff. sea-air, °F.
 " 32 Dew point, °F.

Table 11.--Summary of weather observations (USWE 1210-F), Charles H. Gilbert cruise 46 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | | Waves | | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|---|---|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9/30 | 19.2° | 157.3° | 1800 | 96 | 08 | 09 | 20 | 6 | 1015.2 | 2 | 1.4 | 77.5 | 75.0 | 80.5 | 9 | X | X | X | X | X | X | X | 18 | 2 | 2 |
| 10/1 | 19.5° | 157.1° | 0000 | 98 | 18 | 07 | 01 | 2 | 1012.0 | 7 | 2.2 | 80.9 | 74.4 | 81.2 | 7 | 5 | 2 | 4 | 6 | 0 | 12 | 3 | 3 | 3 | |
| 10/1 | 18.7° | 156.5° | 0600 | 96 | 09 | 16 | 02 | 2 | 1013.5 | 2 | 1.7 | 80.7 | 74.0 | 79.1 | 8 | X | X | X | X | X | X | X | 13 | 3 | 4 |
| 10/1 | 18.1° | 155.9° | 1200 | 96 | 07 | 14 | 01 | 0 | 1012.5 | 7 | 1.3 | 79.5 | 74.3 | 79.7 | 3 | X | X | X | X | X | X | 06 | 3 | 3 | |
| 10/1 | 17.2° | 155.1° | 1800 | 97 | 06 | 13 | 02 | 0 | 1014.2 | 2 | 2.0 | 80.8 | 74.5 | 80.0 | 3 | 2 | 8 | 4 | 6 | 0 | 08 | 3 | 3 | 3 | |
| 10/2 | 17.5° | 154.6° | 0000 | 98 | 04 | 12 | 02 | 0 | 1012.5 | 7 | 1.9 | 79.7 | 74.1 | 80.0 | 4 | 3 | 2 | 4 | 6 | 0 | 06 | 2 | 3 | 3 | |
| 10/2 | 17.2° | 154.0° | 0600 | 96 | 10 | 10 | 01 | 0 | 1013.2 | 2 | 1.5 | 79.8 | 74.4 | 79.9 | 2 | X | X | X | X | X | 06 | 3 | 2 | 3 | |
| 10/2 | 17.1° | 153.5° | 1200 | 96 | 07 | 07 | 03 | 2 | 1012.2 | 7 | 1.7 | 79.2 | 73.0 | 80.3 | 7 | X | X | X | X | X | 06 | 3 | 2 | 2 | |
| 10/2 | 17.0° | 153.1° | 1800 | 98 | 08 | 12 | 01 | 0 | 1013.5 | 2 | 1.8 | 79.9 | 74.8 | 81.0 | 2 | 2 | 8 | 0 | 0 | 0 | 09 | 3 | 2 | 2 | |
| 10/3 | 17.9° | 153.2° | 0600 | 96 | 09 | 10 | 02 | 0 | 1013.2 | 2 | 1.5 | 78.1 | 72.9 | 79.7 | 2 | X | X | X | X | X | 08 | 3 | 3 | 2 | |
| 10/3 | 18.5° | 153.2° | 1200 | 96 | 05 | 05 | 20 | 2 | 1013.5 | 4 | 0.0 | 76.7 | 73.3 | 78.9 | 7 | X | X | X | X | X | 00 | X | 1 | 1 | |
| 10/3 | 19.2° | 153.2° | 1800 | 97 | 08 | 09 | 18 | 2 | 1014.2 | 2 | 1.5 | 77.7 | 72.0 | 78.1 | 6 | 4 | 5 | 3 | 6 | 0 | 04 | 2 | 1 | 1 | |
| 10/4 | 20.4° | 153.1° | 0000 | 99 | 08 | 06 | 01 | 0 | 1013.2 | 6 | 2.0 | 78.5 | 72.6 | 78.9 | 1 | 1 | 2 | 4 | 0 | 0 | 03 | 2 | 2 | 1 | |
| 10/4 | 21.3° | 153.0° | 0600 | 99 | 08 | 06 | 02 | 0 | 1014.9 | 2 | 2.0 | 77.0 | 69.8 | 79.0 | 3 | X | X | X | X | X | 03 | 2 | 1 | 1 | |
| 10/4 | 22.1° | 153.0° | 1200 | 97 | 08 | 11 | 02 | 0 | 1014.6 | 7 | 1.0 | 76.4 | 72.0 | 78.0 | 3 | X | X | X | X | X | 03 | 2 | 1 | 1 | |
| 10/4 | 22.9° | 153.0° | 1800 | 97 | 00 | 02 | 02 | 0 | 1015.2 | 2 | 1.5 | 76.0 | 71.7 | 77.7 | 2 | 2 | 2 | 5 | 0 | 0 | 03 | 2 | 1 | 1 | |
| 10/5 | 22.8° | 153.6° | 0600 | 97 | 13 | 12 | 03 | 2 | 1015.6 | 2 | 2.0 | 78.1 | 73.9 | 78.5 | 7 | X | X | X | X | X | 09 | 3 | 2 | 2 | |
| 10/5 | 22.3° | 154.2° | 1200 | 96 | 13 | 13 | 02 | 2 | 1015.2 | 7 | 1.0 | 78.3 | 73.8 | 78.4 | 4 | X | X | X | X | X | 10 | 3 | 3 | 2 | |
| 10/5 | 21.6° | 155.1° | 1800 | 98 | 11 | 11 | 03 | 1 | 1015.6 | 2 | 1.2 | 79.8 | 74.8 | 78.4 | 5 | 5 | 8 | 5 | 0 | 0 | 13 | 3 | 2 | 2 | |
| 10/6 | 21.2° | 155.7° | 0000 | 99 | 12 | 09 | 01 | 1 | 1014.2 | 7 | 2.0 | 79.6 | 75.8 | 79.7 | 2 | 2 | 2 | 5 | 6 | 0 | 13 | 3 | 1 | 1 | |
| 10/9 | 20.4° | 157.9° | 0600 | 97 | 13 | 10 | 02 | 2 | 1014.2 | 2 | 2.0 | 81.1 | 74.1 | 80.8 | 6 | X | X | X | X | X | 13 | 3 | 3 | 3 | |
| 10/9 | 19.6° | 158.2° | 1200 | 97 | 16 | 12 | 03 | 2 | 1015.2 | 8 | 0.5 | 76.5 | 70.8 | 80.0 | 8 | X | X | X | X | X | 09 | 4 | 3 | 3 | |
| 10/9 | 19.0° | 158.9° | 1800 | 98 | 09 | 12 | 03 | 1 | 1015.2 | 2 | 1.0 | 80.0 | 74.1 | 80.0 | 5 | 5 | 8 | 5 | 0 | 0 | 09 | 3 | 2 | 2 | |
| 10/10 | 18.5° | 159.4° | 0000 | 98 | 11 | 10 | 02 | 0 | 1013.9 | 7 | 1.9 | 81.1 | 73.7 | 80.8 | 2 | 2 | 8 | 4 | 0 | 0 | 12 | 3 | 3 | 3 | |
| 10/10 | 18.0° | 160.1° | 0600 | 97 | 08 | 15 | 02 | 2 | 1015.6 | 2 | 2.0 | 80.0 | 74.2 | 80.0 | 6 | 6 | 8 | 4 | 0 | 0 | 09 | 3 | 3 | 3 | |
| 10/10 | 17.0° | 160.1° | 1200 | 96 | 12 | 17 | 02 | 2 | 1014.9 | 7 | 1.0 | 80.3 | 74.7 | 80.0 | 8 | 8 | 8 | 4 | 0 | 0 | 09 | 3 | 4 | 4 | |
| 10/10 | 16.4° | 160.1° | 1800 | 97 | 09 | 14 | 02 | 2 | 1014.9 | 2 | 1.0 | 80.8 | 75.8 | 80.5 | 6 | 6 | 8 | 4 | 0 | 0 | 08 | 3 | 4 | 3 | |
| 10/11 | 15.5° | 160.2° | 0600 | 96 | 08 | 16 | 20 | 2 | 1013.9 | 2 | 1.8 | 81.0 | 76.7 | 80.9 | 8 | 8 | 8 | 4 | 0 | 0 | 06 | 3 | 3 | 3 | |
| 10/11 | 15.6° | 160.6° | 1200 | 96 | 07 | 12 | 02 | 2 | 1013.9 | 8 | 1.0 | 80.2 | 77.1 | 80.8 | 5 | 3 | 8 | 4 | 6 | 0 | 06 | 3 | 3 | 3 | |
| 10/11 | 16.1° | 161.3° | 1800 | 98 | 05 | 14 | 02 | 2 | 1014.9 | 2 | 2.0 | 79.5 | 76.0 | 80.0 | 4 | 4 | 8 | 5 | 0 | 0 | 07 | 3 | 3 | 3 | |
| 10/12 | 16.6° | 162.3° | 0000 | 98 | 07 | 17 | 02 | 0 | 1012.9 | 7 | 2.5 | 80.4 | 75.4 | 81.0 | 4 | 4 | 8 | 5 | 6 | 0 | 07 | 3 | 3 | 3 | |
| 10/12 | 17.1° | 163.0° | 0600 | 98 | 08 | 12 | 02 | 0 | 1013.9 | 2 | 1.7 | 80.0 | 74.9 | 80.6 | 3 | 3 | 2 | 5 | 6 | 0 | 07 | 3 | 3 | 3 | |
| 10/12 | 17.5° | 163.4° | 1200 | 97 | 05 | 10 | 01 | 0 | 1014.6 | 7 | 1.0 | 79.4 | 73.9 | 80.6 | 3 | 3 | 2 | 5 | 0 | 0 | 07 | 3 | 3 | 3 | |
| 10/12 | 18.5° | 163.9° | 1800 | 98 | 09 | 14 | 03 | 0 | 1015.2 | 2 | 1.0 | 80.0 | 73.7 | 81.2 | 4 | 4 | 2 | 4 | 6 | 0 | 07 | 4 | 3 | 3 | |
| 10/13 | 18.7° | 164.3° | 0000 | 98 | 08 | 09 | 02 | 0 | 1014.6 | 7 | 2.0 | 81.8 | 74.0 | 80.6 | 4 | 4 | 8 | 5 | 6 | 0 | 08 | 4 | 3 | 3 | |

Table 11.--Summary of weather observations (USWB 1210-F), Charles H. Gilbert cruise 46 (con.)

| Date, 1959 | Latitude N. | Longitude W. | Time (GCT) | Visibility | Wind | | Weather | | Pressure | | | Temperature (° F.) | | | Clouds | | | | | | Waves | | |
|------------|-------------|--------------|------------|------------|-----------|-------------|---------|------|---------------------|----------------|-------------|-----------------------|----------|-----------|--------------|------------|----------|------------|-------------|-----------|-----------|--------|--------|
| | | | | | Direction | Speed (kn.) | Present | Past | Bar. corr. (mb.) | Characteristic | Amt. change | Dry bulb | Wet bulb | Sea water | Total amount | Amount low | Type low | Height low | Type middle | Type high | Direction | Period | Height |
| 10/13 | 18.1° | 165.0° | 0600 | 98 | 06 | 13 | 02 | 0 | 1014.6 | 2 | 1.0 | 80.9 | 74.8 | 81.7 | 3 | 2 | 2 | 4 | 6 | 0 | 09 | 4 | 3 |
| 10/13 | 17.6° | 165.4° | 1200 | 98 | 08 | 14 | 02 | 0 | 1013.9 | 7 | 1.2 | 80.5 | 75.2 | 81.7 | 4 | 4 | 2 | 4 | 0 | 0 | 08 | 4 | 3 |
| 10/13 | 16.9° | 166.1° | 1800 | 97 | 10 | 12 | 18 | 1 | 1013.9 | 2 | 1.5 | 80.0 | 74.8 | 80.8 | 6 | 6 | 8 | 5 | 0 | 0 | 08 | 3 | 4 |
| 10/14 | 16.9° | 166.6° | 0000 | 97 | 09 | 11 | 02 | 1 | 1012.9 | 7 | 2.0 | 81.0 | 74.9 | 81.6 | 4 | 3 | 2 | 5 | 6 | 0 | 09 | 3 | 4 |
| 10/14 | 17.7° | 167.2° | 0600 | 96 | 10 | 15 | 03 | 2 | 1013.5 | 2 | 2.2 | 80.1 | 75.1 | 81.4 | 7 | 7 | 3 | 4 | 0 | 0 | 06 | 3 | 4 |
| 10/14 | 18.7° | 167.3° | 1200 | 97 | 04 | 10 | 02 | 0 | 1014.2 | 8 | 0.5 | 80.1 | 74.3 | 81.6 | 3 | 3 | 2 | 4 | 0 | 0 | 04 | 3 | 4 |
| 10/14 | 19.6° | 167.5° | 1800 | 98 | 04 | 17 | 03 | 1 | 1014.2 | 2 | 1.0 | 80.0 | 75.1 | 81.1 | 4 | 4 | 8 | 5 | 6 | 0 | 04 | 3 | 4 |
| 10/15 | 20.4° | 167.0° | 0000 | 98 | 06 | 13 | 02 | 0 | 1013.5 | 7 | 1.0 | 81.4 | 75.0 | 81.5 | 2 | 2 | 2 | 5 | 0 | 0 | 06 | 3 | 4 |
| 10/15 | 20.7° | 166.3° | 0600 | 98 | 07 | 13 | 03 | 1 | 1013.5 | 2 | 1.0 | 78.7 | 73.4 | 81.8 | 5 | 5 | 8 | 5 | 0 | 0 | 06 | 3 | 4 |
| 10/15 | 20.5° | 165.6° | 1200 | 97 | 07 | 14 | 03 | 2 | 1014.2 | 7 | 0.7 | 80.3 | 74.5 | 81.5 | 6 | 6 | 8 | 4 | 0 | 0 | 07 | 3 | 4 |
| 10/15 | 20.4° | 164.5° | 1800 | 98 | 06 | 12 | 01 | 1 | 1014.2 | 2 | 1.0 | 81.5 | 74.0 | 81.3 | 3 | 3 | 2 | 4 | 6 | 0 | 07 | 2 | 4 |
| 10/16 | 20.7° | 164.0° | 0000 | 98 | 04 | 12 | 03 | 1 | 1013.2 | 7 | 1.8 | 81.6 | 75.0 | 81.6 | 7 | 6 | 2 | 4 | 6 | 0 | 05 | 2 | 3 |
| 10/16 | 21.2° | 163.1° | 0600 | 97 | 09 | 12 | 02 | 2 | 1014.2 | 2 | 1.7 | 80.5 | 75.2 | 81.4 | 6 | 5 | 2 | 4 | 6 | 0 | 06 | 2 | 3 |
| 10/16 | 21.7° | 162.8° | 1200 | 97 | 07 | 14 | 01 | 0 | 1015.2 | 8 | 0.2 | 80.3 | 74.0 | 81.3 | 2 | 2 | 2 | 4 | 0 | 0 | 06 | 2 | 3 |
| 10/16 | 22.7° | 162.2° | 1800 | 98 | 08 | 12 | 02 | 0 | 1015.9 | 2 | 1.0 | 80.0 | 74.8 | 79.7 | 2 | 2 | 2 | 4 | 0 | 0 | 06 | 2 | 4 |
| 10/17 | 23.0° | 161.9° | 0000 | 98 | 11 | 14 | 02 | 0 | 1015.2 | 7 | 2.0 | 80.2 | 73.8 | 80.0 | 2 | 2 | 1 | 4 | 6 | 0 | 12 | 2 | 4 |
| 10/17 | 22.1° | 161.6° | 0600 | 97 | 07 | 14 | 02 | 0 | 1015.6 | 7 | 1.0 | 79.8 | 73.3 | 80.7 | 3 | 3 | 2 | 4 | 0 | 0 | 10 | 3 | 4 |
| 10/17 | 21.3° | 161.3° | 1200 | 97 | 09 | 16 | 01 | 1 | 1015.2 | 7 | 1.0 | 79.7 | 71.8 | 80.6 | 3 | 3 | 2 | 4 | 0 | 0 | 10 | 3 | 4 |
| 10/17 | 21.7° | 160.4° | 1800 | 98 | 08 | 18 | 02 | 0 | 1015.9 | 2 | 1.5 | 79.5 | 72.8 | 80.8 | 3 | 3 | 2 | 4 | 0 | 0 | 10 | 3 | 4 |
| 10/18 | 22.9° | 157.5° | 0600 | 97 | 10 | 14 | 03 | 1 | 1017.6 | 2 | 2.0 | 80.2 | 74.2 | 80.4 | 4 | 4 | 2 | 4 | 0 | 0 | 08 | 3 | 4 |
| 10/18 | 22.5° | 159.3° | 1200 | 97 | 08 | 12 | 02 | 0 | 1018.0 | 8 | 1.0 | 78.3 | 72.1 | 80.0 | 3 | 3 | 2 | 4 | 0 | 0 | 11 | 3 | 4 |
| 10/18 | 21.6° | 158.5° | 1800 | 97 | 08 | 16 | 03 | 0 | 1018.3 | 2 | 1.5 | 78.3 | 70.6 | 79.5 | 4 | 4 | 2 | 4 | 0 | 0 | 11 | 3 | 4 |

Table 12.--Light penetration and water color ^{1/}

| Cruise | Date, 1959 | Latitude N. | Longitude W. | Sea _{2/} | Cloud cover _{2/} | Water color (Forel) | Secchi disc (meters) |
|----------------------------------|---------------|----------------|-----------------|-------------------|------------------------------|------------------------|-------------------------|
| <u>Hugh M. Smith</u> 50 | 1/14 | 15°08' | 149°37' | 6 | 2 | 3 | 28 |
| | 1/16 | 16°39' | 147°11' | 7 | 3 | 3 | 26 |
| | 1/20 | 21°02' | 148°00' | 2 | 2 | 3 | 31 |
| | 1/22 | 24°32' | 149°15' | 5 | 1 | 2 | 33 |
| <u>Hugh M. Smith</u> 51 | 3/13 | 18°23' | 147°25' | 3 | 2 | - | 31 |
| | 3/14 | 15°26' | 148°35' | 1 | 1 | 1 | 46 |
| | 3/15 | 14°49' | 150°12' | 2 | 2 | 2 | 40 |
| | 3/23 | 20°28' | 161°03' | 2 | 6 | 1 | 38 |
| <u>Charles H. Gilbert</u> 45 | 6/19 | 19°39' | 162°52' | 3 | 3 | 2 | 33 |
| | 6/20 | 22°19' | 165°12' | 2 | 5 | 1 | 29 |
| | 6/22 | 24°03' | 165°05' | 2 | 5 | 1 | 36 |
| | 6/23 | 25°17' | 162°24' | 1 | 1 | 1 | 36 |
| | 6/27 | 24°13' | 152°55' | 2 | 5 | 1 | 36 |
| | 6/28 | 20°29' | 152°51' | 2 | 4 | 2 | 39 |
| | 6/29 | 16°57' | 153°25' | 3 | 4 | 1 | 41 |
| | | | | | | | |
| <u>Charles H. Gilbert</u> 46 | 10/1 | 17°34' | 154°58' | 3 | 3 | 2 | 31 |
| | 10/2 | 17°00' | 153°15' | 1 | 3 | 2 | 33 |
| | 10/3 | 20°06' | 153°07' | 1 | 3 | 1 | 38 |
| | 10/4 | 22°50' | 153°00' | 2 | 3 | 1 | 35 |
| | 10/5 | 21°20' | 155°33' | 2 | 4 (?) | 2 | 29 |
| | 10/9 | 18°41' | 159°14' | 2 | 4 | 3 | 31 |
| | 10/10 | 16°24' | 160°51' | 3 | 7 | 2 | 37 |
| | 10/12 | 19°01' | 164°04' | 2 | 4 | 1 | 27 |
| | | | | | | | |

^{1/} All observations at local apparent noon.^{2/} Sea state and cloud cover coded according to H.O. Pub. 606-c, second edition, 1956.

Table 13.--Zooplankton station positions and sample weights,
Hugh M. Smith cruise 50

| Station ^{1/} | Sample | Date, 1959 ^{2/} | Position | | Water strained m. ³ | Weight (g./1,000 m. ³) ^{3/} |
|-----------------------|--------|-----------------------------|----------|-----------|--------------------------------------|---|
| | | | Lat. N. | Long. W. | | |
| 1 | 1 | 1/10 | 17°28' | 154°40.2' | 1,338.4 | 26.2 |
| 2 | 1 | 1/11 | 14°41.5' | 152°21' | 1,154.4 | 9.5 |
| 3A | 1 | 1/12 | 12°41.5' | 150°23.5' | 1,056.8 | 23.7 |
| 3B | 1 | 1/12 | 12°42' | 150°22' | 1,291.8 | 33.3 |
| 5 | 1 | 1/13 | 13°30' | 149°34.8' | 1,361.2 | 37.5 |
| 7 | 1 | 1/14 | 15°43' | 149°16.2' | 1,459.3 | 41.8 |
| 9 | 1 | 1/15 | 17°14.5' | 148°36.5' | 1,654.1 | 27.2 |
| 11A | 1 | 1/16 | 17°19.5' | 147°16.3' | 1,475.6 | 22.4 |
| 11B | 1 | 1/16 | 17°19.5' | 147°14' | 1,358.0 | 15.5 |
| 12 | 1 | 1/17 | 20°20.5' | 148°58' | 1,403.5 | 12.1 |
| 13 | 1 | 1/19 | 21°48' | 148°48.8' | 1,544.7 | 18.1 |
| 15 | 1 | 1/20 | 21°19' | 148°01.3' | 1,431.7 | 19.6 |
| 17 | 1 | 1/21 | 23°13' | 148°22.8' | 1,315.8 | 19.0 |
| 19 | 1 | 1/22 | 23°14' | 149°31' | 1,495.7 | 21.4 |
| 20 | 1 | 1/23 | 19°55' | 151°32.8' | 1,372.5 | 14.6 |
| 21 | 1 | 1/24 | 19°55' | 153°46.2' | 1,373.2 | 9.5 |
| 22 | 1 | 1/25 | 22°52' | 154°30' | 1,467.4 | 36.1 |
| 24A | 1 | 1/26 | 21°58.3' | 153°13' | 1,357.8 | 33.1 |
| 24B | 1 | 1/26 | 21°57.8' | 153°10' | 1,610.9 | 27.9 |
| 25 | 1 | 1/28 | 18°02.5' | 156°35.5' | 1,634.2 | 22.6 |
| 26 | 1 | 1/29 | 18°11' | 159°30.6' | 1,400.1 | 18.6 |
| 27 | 1 | 1/30 | 20°32.2' | 162°19.8' | 1,407.8 | 32.0 |
| 28 | 1 | 2/1 | 19°44' | 165°20' | 1,246.4 | 12.8 |
| 30 | 1 | 2/2 | 18°05.2' | 166°02' | 1,471.5 | 27.9 |
| 31 | 1 | 2/3 | 16°25' | 168°24.2' | 1,526.6 | 41.9 |
| 33 | 1 | 2/4 | 15°52.2' | 169°54' | 1,394.4 | 32.3 |
| 35 | 1 | 2/6 | 13°38' | 164°55' | 1,481.9 | 16.9 |
| 36 | 1 | 2/7 | 15°34' | 163°14' | 1,559.2 | 39.8 |
| 37 | 1 | 2/8 | 17°56' | 160°57.2' | 1,522.6 | 26.3 |
| 39 | 1 | 2/9 | 19°40' | 159°31' | 1,551.9 | 36.1 |

N= 27
Total= 679.0
 \bar{x} = 25.14

^{1/} All hauls were oblique, from 60 m. to the surface, except those at stations 3B, 11B, and 24B. These three were oblique hauls from 140 m. to the surface; they were omitted in the averaging of sample weights.

^{2/} All hauls were made between 1900 and 2200 hours.

^{3/} Volumes determined as cc./1,000 m.³ have been converted to g./1,000 m.³. Jellies longer than 2 cm. and other organisms longer than 5 cm. are not included.

Table 14.--Zooplankton station positions and sample weights,
Hugh M. Smith cruise 51

| Station ^{1/} | Sample | Date, 1959 ^{2/} | Position | | Water strained m. ³ | Weight (g./1,000 m. ³) ^{3/} |
|-----------------------|--------|-----------------------------|----------|-----------|--------------------------------------|---|
| | | | Lat. N. | Long. W. | | |
| 1 | 1 | 3/6 | 23°58.8' | 155°00' | 1,456.3 | 15.8 |
| 2 | 1 | 3/7 | 23°56.2' | 152°48.8' | 1,737.6 | 21.9 |
| 3 | 1 | 3/9 | 24°01.5' | 148°32.8' | 1,451.0 | 35.8 |
| 4 | 1 | 3/10 | 23°56' | 146°30.5' | 1,767.2 | 21.5 |
| 5 | 1 | 3/12 | 19°50.7' | 146°52' | 1,780.9 | 10.1 |
| 7 | 1 | 3/13 | 17°44' | 147°42.8' | 1,198.0 | 27.5 |
| 8 | 1 | 3/14 | 14°20.0' | 149°06.5' | 1,290.3 | -- ^{4/} |
| 10 | 1 | 3/15 | 15°21.8' | 150°49.8' | 1,305.1 | 11.5 |
| 11 | 1 | 3/16 | 18°17' | 153°15' | 1,500.4 | 14.0 |
| 12 | 1 | 3/17 | 21°37' | 153°50.8' | 1,428.0 | 32.2 |
| 13 | 1 | 3/18 | 22°02' | 155°54.2' | 1,709.0 | 29.3 |
| 14 | 1 | 3/21 | 21°43.5' | 159°19.5' | 1,624.4 | 19.7 |
| 17 | 1 | 3/22 | 21°56.7' | 161°26' | 1,608.0 | 29.9 |
| 20 | 1 | 3/23 | 19°46.5' | 160°48' | 1,700.9 | 26.5 |
| 21 | 1 | 3/24 | 18°56.8' | 159°01.2' | 1,386.2 | 51.9 |
| 22 | 1 | 3/27 | 24°11' | 151°32.5' | 1,683.3 | 29.7 |
| 23 | 1 | 3/28 | 24°03.3' | 148°43.2' | 1,594.8 | 29.5 |
| 24 | 1 | 3/30 | 20°18' | 145°29.2' | 1,570.8 | 21.0 |
| 26 | 1 | 3/31 | 18°22.8' | 147°09' | 1,841.1 | 27.2 |
| 27 | 1 | 4/1 | 14°58' | 149°28.2' | 1,348.4 | 14.8 |
| 31 | 1 | 4/5 | 22°36' | 156°14' | 2,015.3 | 51.1 |

N=20
Total=520.9
 \bar{x} =26.04

^{1/} All hauls were oblique, from 60 m. to the surface.

^{2/} All hauls were made between 1900 and 2200 hours.

^{3/} Volumes determined as cc./1,000 m.³ have been converted to g./1,000 m.³. Jellies longer than 2 cm. and other organisms longer than 5 cm. are not included.

^{4/} Sample almost entirely composed of salps; no weight taken.

Table 15.--Zooplankton station positions and sample weights,
Charles H. Gilbert cruise 44

| Station ^{1/} | Sample | Date, ^{2/} 1959 | Position | | Water strained m. ³ | Weight (g./1,000 m. ³) ^{3/} |
|-----------------------|--------|-----------------------------|----------|-----------|--------------------------------------|---|
| | | | Lat. N. | Long. W. | | |
| 3 | 1 | 4/30 | 22°31' | 158°24' | 1,453.8 | 36.5 |
| 4 | 1 | 5/1 | 23°50' | 159°56' | 1,417.5 | 15.5 |
| 6 | 1 | 5/2 | 21°58' | 161°20' | 1,808.2 | 39.8 |
| 7 | 1 | 5/3 | 19°34' | 162°10' | 1,197.2 | 15.9 |
| 9 | 1 | 5/4 | 19°34' | 160°12' | 1,520.1 | 23.0 |
| 10 | 1 | 5/9 | 21°42' | 150°35' | 2,013.2 | 15.9 |
| 11 | 1 | 5/10 | 18°45' | 150°45.5' | 1,548.6 | 23.9 |
| 13 | 1 | 5/11 | 16°31' | 151°49.5' | 1,599.6 | 11.3 |
| 14 | 1 | 5/12 | 18°11' | 153°19' | 1,817.1 | 29.7 |
| 15 | 1 | 5/13 | 21°06' | 154°21.5' | 1,218.6 | 15.6 |
| 17 | 1 | 5/14 | 23°01' | 154°22' | 1,575.4 | 25.4 |
| 19 | 1 | 5/15 | 23°11' | 154°38' | 1,648.3 | 15.8 |
| 20 | 1 | 5/16 | 20°03' | 156°14.5' | 1,758.0 | 9.1 |
| 21 | 1 | 5/17 | 18°23' | 157°59.5' | 1,613.1 | 23.6 |
| 23 | 1 | 5/23 | 20°24' | 158°28' | 1,501.4 | 32.6 |
| 24 | 1 | 5/21 | 18°03' | 161°03' | 1,458.3 | 13.7 |
| 26 | 1 | 5/23 | 23°07' | 161°10' | 1,196.0 | 31.8 |
| 27 | 1 | 5/24 | 23°49' | 159°42' | 1,663.1 | 22.2 |
| 29 | 1 | 5/26 | 22°02.5' | 156°56.5' | 1,598.3 | 45.7 |
| 30 | 1 | 5/27 | 24°26' | 153°44' | 1,557.0 | 26.3 |
| 31 | 1 | 5/28 | 22°01' | 152°38' | 1,367.1 | 41.7 |
| 32 | 1 | 5/30 | 18°13' | 155°14' | 1,364.3 | 11.7 |

N= 22
Total= 526.7
x= 23.94

^{1/} All hauls were oblique, from 60 m. to the surface.

^{2/} All hauls were made between 1900 and 2200 hours.

^{3/} Volumes determined as cc./1,000 m.³ have been converted to g./1,000 m.³. Jellies longer than 2 cm. and other organisms longer than 5 cm. are not included.

Table 16.--Zooplankton station positions and sample weights,
Charles H. Gilbert cruise 45

| Station | Sample ^{1/} | Date, 1959 ^{2/} | Position | | Water strained ^{3/} m. | Weight (g./1,000 m. ³) ^{3/} |
|---------|----------------------|--------------------------|----------|-----------|------------------------------------|---|
| | | | Lat. N. | Long. W. | | |
| 12 | 1 | 7/17 | 20°18' | 158°55' | 1,449.3 | 11.7 |
| | 2 | 7/17 | 20°18' | 158°55' | -- | -- |
| | 3 | 7/17 | 20°18' | 158°55' | -- | -- |
| 13 | 1 | 7/18 | 18°15' | 161°15' | 1,128.6 | 32.8 |
| | 2 | 7/18 | 18°15' | 161°15' | -- | -- |
| | 3 | 7/18 | 18°15' | 161°15' | -- | -- |
| 14 | 1 | 7/19 | 20°40.1' | 163°41.5' | 1,033.7 | 40.6 |
| | 2 | 7/19 | 20°40.1' | 163°41.5' | -- | -- |
| | 3 | 7/19 | 20°40.1' | 163°41.5' | -- | -- |
| 15 | 1 | 7/20 | 23°20' | 166°10' | 1,055.2 | 37.0 |
| | 2 | 7/20 | 23°20' | 166°10' | -- | -- |
| | 3 | 7/20 | 23°20' | 166°10' | -- | -- |
| 19 | 1 | 7/22 | 24°25' | 164°46' | 1,341.0 | 34.3 |
| | 2 | 7/22 | 24°25' | 164°46' | -- | -- |
| | 3 | 7/22 | 24°25' | 164°46' | -- | -- |
| 21 | 1 | 7/23 | 25°38' | 161°06' | 1,245.4 | 16.9 |
| | 2 | 7/23 | 25°38' | 161°06' | -- | -- |
| | 3 | 7/23 | 25°38' | 161°06' | -- | -- |
| 22 | 1 | 7/24 | 23°07' | 159°00' | 810.7 | 82.6 ^{4/} |
| | 2 | 7/24 | 23°07' | 159°00' | -- | -- |
| | 3 | 7/24 | 23°07' | 159°00' | -- | -- |
| 25 | 1 | 7/25 | 22°50' | 156°20' | 1,124.5 | 50.7 |
| | 2 | 7/25 | 22°50' | 156°20' | -- | -- |
| | 3 | 7/25 | 22°50' | 156°20' | -- | -- |
| 26 | 1 | 7/26 | 25°23' | 153°33' | 1,172.4 | 70.8 |
| | 2 | 7/26 | 25°23' | 153°33' | -- | -- |
| | 3 | 7/26 | 25°23' | 153°33' | -- | -- |
| 27 | 1 | 7/27 | 22°58' | 152°52' | 1,198.9 | 42.5 |
| | 2 | 7/27 | 22°58' | 152°52' | -- | -- |
| | 3 | 7/27 | 22°58' | 152°52' | -- | -- |
| 28 | 1 | 7/28 | 19°13' | 152°55' | 1,119.6 | 26.8 |
| | 2 | 7/28 | 19°13' | 152°55' | -- | -- |
| | 3 | 7/28 | 19°13' | 152°55' | -- | -- |
| 29 | 1 | 7/29 | 16°48.5' | 154°37.5' | 1,283.8 | 21.0 |
| | 2 | 7/29 | 16°48.5' | 154°37.5' | -- | -- |
| | 3 | 7/29 | 16°48.5' | 154°37.5' | -- | -- |
| 30 | 1 | 7/30 | 19°19' | 157°11' | 1,364.1 | 22.0 |

N = 12
Total = 407.1
 \bar{x} = 33.92

^{1/} Plankton hauls 2 and 3 for stations 12 through 29 were surface tows of 20 minutes' duration, for collecting larval tuna; weights were not determined. The remaining hauls were oblique from 60 m. to the surface.

^{2/} All hauls were made between 1900 and 2200 hours.

^{3/} Volumes determined as cc./1,000 m.³ have been converted to g./1,000 m.³. Jellies longer than 2 cm. and other organisms longer than 5 cm. are not included.

^{4/} Questionable value due to unusual abundance of salps; value not included in the averaging of sample weights.

Table 17.--Zooplankton station positions and sample weights,
Charles H. Gilbert cruise 46

| Station <u>1</u> / | Sample <u>2</u> / | Date, <u>3</u> / 1959 | Position | | Water strained m. ³ | Weight (g./1,000 m. ³) <u>4</u> / |
|--------------------|-------------------|--------------------------|----------|----------|--------------------------------------|--|
| | | | Lat. N. | Long. W. | | |
| 11 | A | 10/1 | 17°13' | 154°00' | 1,476.4 | 16.9 |
| 11 | B | 10/1 | 17°13' | 154°00' | 1,439.6 | 16.0 |
| 13 | A | 10/2 | 17°54' | 154°17' | 1,587.0 | 18.3 |
| 13 | B | 10/2 | 17°54' | 154°17' | 1,571.5 | 20.4 |
| 14 | A | 10/3 | 21°18' | 153°02' | 1,646.9 | 23.1 |
| 14 | B | 10/3 | 21°18' | 153°02' | 1,634.7 | 35.5 |
| 16 | A | 10/4 | 22°48' | 153°42' | 1,525.2 | 31.5 |
| 16 | B | 10/4 | 22°48' | 153°42' | 1,465.6 | 36.2 |
| 17 | A | 10/8 | 20°48' | 157°33' | 1,831.1 | 2.6 |
| 17 | B | 10/8 | 20°48' | 157°33' | 1,698.8 | 7.0 |
| 17 | C | 10/8 | 20°48' | 157°33' | 1,473.9 | 6.2 |
| 17 | D | 10/8 | 20°48' | 157°33' | 1,455.1 | 3.8 |
| 17 | E | 10/8 | 20°48' | 157°33' | 1,336.7 | 5.2 |
| 18 | A | 10/8 | 20°21' | 157°54' | 1,423.1 | 24.6 |
| 18 | B | 10/8 | 20°21' | 157°54' | 1,404.9 | 25.0 |
| 21 | A | 10/10 | 15°33' | 160°15' | 1,421.1 | 11.3 |
| 21 | B | 10/10 | 15°33' | 160°15' | 1,464.8 | 13.0 |
| 22 | A | 10/11 | 17°06' | 163°01' | 1,403.0 | 27.8 |
| 22 | B | 10/11 | 17°06' | 163°01' | 1,589.1 | 22.7 |
| 23 | A | 10/12 | 18°08' | 164°57' | 1,397.3 | 19.3 |
| 23 | B | 10/12 | 18°08' | 164°57' | 1,408.7 | 18.5 |
| 24 | A | 10/14 | 20°42' | 166°19' | 1,497.0 | 16.0 |
| 24 | B | 10/14 | 20°42' | 166°19' | 1,504.6 | 21.9 |
| 25 | A | 10/15 | 21°10' | 163°09' | 1,666.7 | 24.6 |
| 25 | B | 10/15 | 21°10' | 163°09' | 1,524.4 | 25.6 |
| 26 | A | 10/17 | 21°51' | 159°32' | 1,652.3 | 24.2 |
| 26 | B | 10/17 | 21°51' | 159°32' | 1,442.8 | 33.3 |
| 26 | C | 10/17 | 21°51' | 159°32' | 1,617.6 | 23.5 |
| 26 | D | 10/17 | 21°51' | 159°32' | 1,382.9 | 27.5 |

N = 11
Total = 251.5
 \bar{x} = 22.86

1/ All hauls were oblique, from 60 m. to the surface, except at station 17, where five surface hauls were made.

2/ Samples other than "A" at each station were for serological studies of larval tuna.

3/ All hauls were made between 1900 and 2200 hours except at station 17, where the five surface hauls were made between 1207 and 1436.

4/ Volumes determined as cc./1,000 m.³ have been converted to g./1,000 m.³. Jellies longer than 2 cm. and other organisms longer than 5 cm. are not included. Volumes of the five surface samples from station 17 were determined by R. S. Shomura. Total weight equals the average zooplankton weight at each station, with the exception of surface tows at station 17 which were not included.

Table 18.--Major zooplankton group composition of selected samples. Upper figure is number of individuals per 1,000 m.³ of water strained; lower figure is percentage of the sample

| Cruise number | Station number | Chaetognatha | Siphonophora | Medusae | Annelida | Copepoda | Euphausiacea | Decapoda | Amphipoda | Pteropoda | Heteropoda | Crustacean eggs and larvae | Fish eggs and larvae | Ostracoda | Mysidacea | Salps | Appendicularia | Pelecyopoda | Others |
|-----------------------|----------------|--------------|--------------|-------------|--------------|---------------|--------------|--------------|-------------|--------------|--------------|----------------------------|----------------------|--------------|-------------|--------------|----------------|--------------|--------------|
| Hugh M. Smith 50 | 3A | 2101 (11) | 965 (5) | - | - | 8289 (44) | 1817 (2) | 284 (0.9) | 511 (3) | 568 (3) | 57 (0.3) | 3132 (16) | 114 (0.6) | 227 (1) | - | 57 (0.3) | - | 114 (0.6) | - |
| | 22 | 3680 (13) | 491 (2) | 82 (0.3) | 491 (2) | 13330 (45) | 981 (3) | 572 (2) | 409 (1) | 1390 (5) | 82 (0.3) | 736 (3) | 900 (3) | 4252 (14) | 82 (0.3) | 327 (1) | - | - | 246 (1) |
| | 5 | 4232 (19) | 441 (2) | 88 (0.4) | - | 9345 (42) | 2909 (13) | 176 (0.8) | 1146 (5) | 1058 (5) | - | 1939 (9) | 176 (0.4) | - | 88 (0.4) | 88 (0.4) | - | 88 (0.4) | 176 (0.8) |
| | 28 | 385 (3) | 48 (0.4) | - | 143 (1) | 6643 (57) | 1396 (12) | 193 (2) | 289 (2) | 759 (7) | - | - | 193 (2) | 626 (5) | - | 95 (0.8) | - | 144 (1) | 48 (0.8) |
| | 35 | 283 (2) | 283 (2) | - | 121 (0.8) | 10128 (70) | 688 (5) | 40 (0.3) | 364 (3) | 1175 (8) | - | 505 (3) | - | 770 (5) | - | - | - | - | 40 (0.3) |
| Hugh M. Smith 51 | 19 | 1444 (15) | 281 (3) | - | 120 (1) | 4413 (44) | 411 (4) | 160 (2) | 120 (1) | 481 (5) | - | 682 (7) | - | 842 (8) | 321 (3) | 40 (0.4) | - | 40 (0.4) | 160 (2) |
| | 20 | 353 (2) | 494 (2) | 71 (0.3) | 282 (1) | 11359 (54) | 2751 (13) | 71 (0.3) | 1693 (8) | 127 (0.7) | 141 (0.7) | 635 (3) | 635 (3) | 2751 (13) | 71 (0.3) | 282 (1.3) | - | 212 (1.0) | 354 (2) |
| | 17 | 1269 (4) | 299 (1) | 75 (0.3) | 597 (2) | 9179 (32) | 1493 (5) | 75 (0.3) | 1343 (5) | 1716 (5) | 448 (2) | 1652 (5) | 286 (1) | 9403 (33) | - | - | - | 300 (1) | - |
| | 23 | 677 (4) | 226 (1) | 38 (0.2) | - | 7374 (46) | 1354 (9) | 151 (1) | 376 (2) | 2257 (14) | - | 264 (2) | - | 2333 (15) | - | 75 (0.5) | - | 113 (0.7) | 38 (0.2) |
| | 27 | 712 (5) | 89 (0.7) | - | 89 (0.7) | 7476 (54) | 1735 (13) | 222 (2) | 712 (5) | 534 (4) | 267 (2) | 667 (5) | 222 (2) | 712 (5) | 45 (0.3) | 178 (1) | - | - | 90 (0.7) |
| Charles H. Gilbert 44 | 4 | 272 (2) | 407 (3) | 68 (0.5) | - | 9370 (65) | 747 (5) | 204 (1) | 272 (2) | 951 (7) | - | 476 (3) | 68 (0.5) | 1222 (9) | - | 68 (0.5) | - | 68 (0.5) | 204 (1) |
| | 24 | 494 (4) | 123 (1) | - | - | 8681 (74) | 247 (2) | - | 535 (5) | 165 (1) | 82 (0.7) | 740 (6) | 1/ (1) | 453 (4) | - | 123 (1) | - | - | 41 (0.4) |

1/ Eggs and larvae removed for chromatographic analysis, by W. M. Matsumoto.

Table 18.--Major zooplankton group composition of selected samples. Upper figure is number of individuals per 1,000 m.³ of water strained; lower figure is percentage of the sample (con.)

| Cruise number | Station number | Chaetognatha | Siphonophora | Medusae | Annelida | Copepoda | Euphausiacea | Decapoda | Amphipoda | Pteropoda | Heteropoda | Crustacean eggs and larvae | Fish eggs and larvae | Ostracoda | Mysidacea | Salps | Appendicularia | Pelecyopoda | Others |
|------------------------------|----------------|--------------|--------------|---------|-----------|------------|--------------|-----------|-----------|-----------|------------|----------------------------|----------------------|-----------|-----------|------------|----------------|-------------|----------|
| | 29 | 2102 (8) | 400 (1) | - | 225 (0.9) | 14641 (55) | 3228 (12) | 150 (0.6) | 1351 (5) | 1126 (4) | 375 (1) | 300 (1.8) | - | 2177 (8) | 75 (0.3) | 375 (1) | - | - | - |
| | 21 | 149 (0.6) | 74 (0.3) | - | 149 (0.6) | 16887 (67) | 967 (4) | - | 1711 (7) | 595 (2) | 446 (2) | - | - | 3943 (16) | - | 74 (0.3) | - | 74 (0.3) | - |
| | 30 | 154 (0.6) | - | - | - | 16956 (68) | 1696 (7) | - | 385 (2) | 1618 (6) | 54 (0.6) | 2312 (9) | - | 1541 (6) | - | - | - | 154 (0.6) | - |
| | 31 | 527 (5) | 44 (0.4) | - | 881 (0.9) | 5925 (59) | 1843 (18) | 88 (0.9) | 351 (3) | 263 (3) | - | - | - | 702 (7) | - | 132 (1) | - | 44 (0.4) | 44 (0.4) |
| <u>Charles H. Gilbert 45</u> | 22 | 562 (3) | - | - | - | 4720 (23) | 112 (0.6) | 112 (0.6) | 1686 (8) | - | - | 1461 (7) | - | 1011 (5) | - | 10900 (53) | - | - | - |
| | 26 | 189 (0.7) | - | - | - | 19608 (73) | 3221 (12) | 379 (1) | 758 (3) | - | - | 1080 (3) | 95 (0.4) | 1516 (6) | - | - | - | 95 (0.4) | - |
| | 25 | 296 (1) | 296 (1) | - | 99 (0.3) | 15900 (54) | 1778 (6) | 395 (1) | 1185 (4) | 790 (3) | 593 (2) | 2370 (8) | 888 (3) | 3259 (11) | - | 1086 (4) | - | - | - |
| | 19 | - | - | - | - | 15239 (74) | 1656 (8) | - | 911 (4) | 497 (2) | - | 1490 (7) | 166 (0.8) | 414 (2) | - | 83 (0.4) | - | - | 83 (0.4) |
| <u>Charles H. Gilbert 46</u> | 14 | 322 (1) | 322 (1) | - | - | 13215 (55) | 752 (3) | 537 (2) | 1826 (8) | 1719 (7) | 214 (0.9) | 907 (4) | 644 (3) | 1826 (8) | - | 537 (2) | - | 322 (1) | 644 (3) |
| | 16A | 1023 (6) | 315 (2) | - | - | 8655 (54) | 629 (4) | 236 (1) | 315 (2) | 1652 (10) | 157 (0.9) | 1179 (7) | 157 (0.9) | 865 (5) | - | 79 (0.5) | - | - | 393 (3) |
| | 11A | 406 (4) | 41 (0.4) | - | 122 (1) | 6462 (67) | 610 (6) | 122 (1) | 447 (5) | 203 (2) | - | 365 (4) | 203 (2) | 366 (4) | - | 163 (2) | - | - | 122 (1) |
| | 13A | 1248 (11) | 76 (0.6) | - | - | 6656 (58) | 1134 (10) | - | 265 (2) | 797 (7) | 113 (1) | 265 (2) | 265 (2) | 529 (5) | - | 114 (1) | - | 38 (0.3) | - |

Table 18.--Major zooplankton group composition of selected samples. Upper figure is number of individuals per 1,000 m.³ of water strained; lower figure is percentage of the sample (con.)

| Cruise number | Station number | Chaetognatha | Siphonophora | Medusae | Annelida | Copepoda | Euphausiacea | Decapoda | Amphipoda | Pteropoda | Heteropoda | Crustacean eggs and larvae | Fish eggs and larvae | Ostracoda | Mysidacea | Salps | Appendicularia | Pelicyopoda | Others |
|---------------|----------------|--------------|--------------|---------|------------|--------------|--------------|------------|------------|------------|------------|----------------------------|----------------------|------------|-------------|------------|----------------|--------------|--------------|
| | 21A | 549 (7) | 84 (1) | - | 253 (3) | 4855 (59) | 929 (11) | - | 464 (6) | 422 (5) | 84 (1) | 169 (2) | 127 (2) | 253 (3) | - | 84 (1) | - | - | - |
| | 18A | 1602 (8) | 590 (3) | - | - | 5650 (28) | 944 (46) | 337 (2) | 506 (3) | 675 (3) | - | 253 (1) | 253 (1) | 506 (3) | 84 (0.4) | 253 (1) | - | 169 (0.8) | 169 (0.8) |

Table 19.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Hugh M. Smith cruise 50

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface Fish Schools | | | Aquatic mammals |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|--------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | |
| 1/10 | 0905 | 18°38' | 155°45' | X (18) | Skipjack | 6 | Small | - |
| | 1240 | 18°14' | 155°22' | X (4) | ? ^{2/} | - | - | - |
| | 1420 | 18°04' | 155°13' | - | - | - | - | 1 Whale |
| | 1500 | 17°58' | 155°08' | - | - | - | - | 1 Whale |
| | 1550 | 17°53' | 155°04' | - | - | - | - | 1 Whale |
| | 1610 | 17°50.5' | 155°01.5' | - | - | - | - | 4 Whales |
| | 1800 | 17°41' | 154°51' | - | - | - | - | 1 Whale |
| 1/12 | 1607 | 12°46' | 150°41' | X (10) | ? | - | - | - |
| 1/15 | 1120 | 17°16' | 149°17.5' | - | Skipjack | 5 | - | - |
| 1/19 | 1055 | 16°41' | 147°13' | - | - | - | - | 1 Whale |
| 1/23 | 1355 | 20°49' | 150°55' | - | - | - | - | 2 Whales |
| 1/24 | 1400 | 19°08.5' | 153°09' | X (21) | ? | - | - | - |
| 1/27 | 0920 | 20°40' | 154°22.5' | X (65) | Yellowfin | 15 | - | - |
| 1/28 | 1210 | 18°50' | 155°34' | X (152) | Skipjack | 8 | - | - |
| | 1330 | 18°43' | 155°43' | - | Skipjack | 6 | - | - |
| | 1415 | 18°37' | 155°50.5' | X (250) | ? | - | - | - |
| 1/29 | 0848 | 17°56' | 158°06' | X (20) | ? | - | - | - |
| 1/30 | 0720 | 19°17.5' | 160°40' | - | Skipjack | Small | - | - |
| | 0800 | 19°19' | 160°49' | - | - | - | - | 1 Whale |
| | 0950 | 19°29' | 161°03' | - | Skipjack | 6 | - | - |
| | 1027 | 19°32' | 161°07.5' | - | ? | Small | - | - |
| | 1125 | 19°36' | 161°17' | X (15) | Skipjack | 11 | - | - |
| | 1215 | 19°47' | 161°30' | - | - | - | - | 1 Whale |
| | 1415 | 20°02.5' | 161°47' | X (10) | Skipjack | 3-4 | - | - |
| 1/31 | 1450 | 22°15' | 162°43' | X (30) | Skipjack | 8 | - | - |
| | 1500 | 22°16' | 162°43' | - | - | - | - | 1 Whale |
| 2/4 | 1200 | 16°22' | 170°31' | - | - | - | - | 1 Whale |
| 2/5 | 0820 | 14°58' | 168°33' | X (20) | ? | - | - | - |
| 2/6 | 0850 | 14°56' | 168°29' | X (9) | ? | Small | - | - |
| 2/8 | 1550 | 17°27' | 161°18' | X (25) | ? | - | - | - |
| 2/9 | 1710 | 19°20' | 159°50' | X (15) | Skipjack | - | - | - |
| 2/10 | 1740 | 21°01.5' | 158°16' | - | Skipjack | 2-3 | Small | - |

^{1/} X = Bird flock.

() = Number birds in flock.

^{2/} ? = Species not determined.

Table 20.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Hugh M. Smith cruise 51

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface Fish Schools | | | Aquatic mammals |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|--------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | |
| 3/5 | 1740 | 21°37' | 156°16' | X (150) | Skipjack | - | Large | - |
| 3/6 | 1020 | 23°01' | 155°27' | X (50) | ? ^{2/} | - | - | - |
| 3/12 | 1315 | 20°49' | 146°29' | - | - | - | - | 2 Porpoises |
| 3/13 | 1745 | 18°05' | 147°35' | - | - | - | - | 4 Porpoises |
| 3/14 | 0945 | 15°48' | 148°35' | X (10) | ? | - | - | - |
| | 1420 | 15°10' | 148°45' | - | - | - | - | 4 Whales |
| 3/15 | 0915 | 14°48' | 150°13' | X (15) | ? | - | - | - |
| 3/18 | 1210 | 22°34' | 155°00' | X (60) | Skipjack | 20 | Large | - |
| | 1535 | 22°25' | 155°20' | X (75) | Skipjack | 6-7 | Large | - |
| | 1540 | 22°25' | 155°20' | X (25) | Skipjack | 6 | - | - |
| 3/19 | 0700 | 21°21' | 157°34' | X (50) | ? | - | - | - |
| | 0755 | 21°16' | 157°42' | - | - | - | - | 2 Whales |
| 3/21 | 1720 | 21°35' | 158°58' | X (15) | ? | - | - | - |
| | 1125 | 21°16' | 157°54' | - | - | - | - | 2 Sperm whales |
| 3/22 | 0752 | 22°34' | 161°04' | X (150) | ? | - | - | - |
| | 0850 | 22°44' | 161°15' | X (7) | ? | - | Small | - |
| | 0955 | 22°45' | 161°29' | X (15) | ? | - | Small | - |
| | 1000 | 22°45.5' | 161.30' | X (8) | ? | - | Small | - |
| | 1036 | 22°58' | 161°38' | - | - | - | - | 3 Porpoises |
| | 1045 | 22°57' | 161°39' | X (12) | ? | - | Small | - |
| | 1055 | 22°57' | 161°40' | X (15) | ? | - | Medium | - |
| | 1211 | 22°59' | 161°48' | X (9) | - | - | - | 1 Sperm whale |
| | 1255 | 22°53' | 161°47' | X (15) | Skipjack | 1-2 | Small | - |
| | 1325 | 22°48' | 161°44' | X (75) | Skipjack | 4-5 | Large | - |
| 3/23 | 0810 | 20°29' | 161°06' | X (40) | Skipjack | - | - | - |
| | 1120 | 20°29' | 161°06' | X (40) | Skipjack | - | Small | - |
| | 1135 | 20°29' | 161°06' | X (50) | Skipjack | - | Large | - |
| | 1625 | 20°21' | 161°00' | X (75) | ? | - | Large | - |
| | 1651 | 20°17' | 160°58' | X (90) | ? | - | Large | - |
| | 1705 | 20°16' | 160°58' | X (70) | ? | - | - | - |
| 3/24 | 1510 | 18°24' | 159°39' | X (30) | Skipjack | 8 | Small | - |
| | 1535 | 18°26' | 159°36' | X (50) | Skipjack | 18-20 | Large | - |
| 3/25 | 0650 | 19°56' | 157°46' | X (15) | Skipjack | 6 | Small | - |
| | 1548 | 20°46.5' | 157°10' | X (50) | ? | - | - | - |
| 3/26 | 0728 | 21°32' | 155°50' | X (10) | - | - | - | - |
| | 1622 | 22°15' | 154°58' | X (25) | ? | - | - | - |
| | 1750 | 22°22' | 154°50' | X (150) | ? | - | - | - |
| | 1832 | 22°25' | 154°46' | X (75) | ? | - | - | - |
| 3/27 | 1708 | 23°57' | 151°58' | - | - | - | - | 1 Whale |
| | 1720 | 23°59' | 151°56' | X (30) | Skipjack | 4 | Small | - |
| 3/28 | 1215 | 24°11' | 149°31' | - | - | - | - | 1 Whale |
| 4/1 | 1255 | 16°01' | 148°44' | X (30) | - | - | - | - |
| | 1540 | 15°39' | 149°00' | X (40) | ? | - | - | - |
| 4/3 | 1614 | 19°49' | 152°23' | X (150) | ? | - | - | - |
| 4/5 | 1345 | 23°25' | 155°31' | X (60) | Skipjack | 8 | Large | - |
| | 1615 | 23°05' | 155°47.5' | X (40) | Skipjack | 7 | Medium | - |
| | 1625 | 23°04' | 155°48' | X (30) | ? | - | Small | - |
| 4/6 | 0730 | 21°37' | 157°23' | X (40) | Skipjack | 8 | Medium | - |
| | 0745 | 21°35' | 157°25' | X (150) | Skipjack | 8-12 | Large | - |
| | 0750 | 21°34' | 157°26' | X (100) | ? | - | Large | - |
| | 0915 | 21°21' | 157°36' | X (150) | ? | - | Large | - |

1/ X = Bird flock.

() = Number birds in flock.

2/ ? = Species not determined.

Table 21.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Charles H. Gilbert cruise 44

| Date, 1959 | Time LST | Position | | Bird flock sightings ^{1/} | Surface fish schools | | | Aquatic mammals |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|------------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | |
| 4/30 | 1220 | 21°39' | 158°18' | X (50) | ? ^{2/} | - | Medium | - |
| | 1010 | 21°30' | 158°18.5' | X (25) | - | - | - | - |
| | 1345 | 21°47' | 158°20' | X (175) | ? | - | Large | - |
| | 1450 | 21°51.5' | 158°22' | X (180) | Skipjack | 6-8 | ? | - |
| 5/1 | 1220 | 24°06' | 158°45' | X (75) | ? | ? | ? | - |
| | 1310 | 24°05' | 159°02' | - | - | - | - | - |
| 5/2 | 1705 | 22°17' | 161°06' | X (20) | - | - | - | - |
| 5/3 | 0908 | 20°26' | 162°33' | - | ? | ? | Small | - |
| 5/5 | 1100 | 20°12.5' | 162°44' | X (200) | ? | ? | Large | - |
| | 1245 | 20°00' | 162°54' | - | - | - | - | - |
| | 1215 | 20°02' | 162°51' | X (75) | ? | - | Small | - |
| | 1230 | 20°01' | 162°53' | X (75) | ? | - | Small | - |
| 5/6 | 1505 | 21°18' | 157°31' | X (45) | Skipjack | 6 | - | - |
| | 1525 | 21°31' | 157°29' | X (150) | Skipjack | - | - | - |
| | 1720 | 21°42' | 157°21' | X (150) | Skipjack | - | - | - |
| | 1345 | 23°57' | 154°16' | - | - | - | - | 1 Porpoise |
| 5/16 | 1150 | 21°11' | 155°38' | - | - | - | - | - |
| | 1305 | 21°01' | 155°43' | X (100) | Skipjack | 3-4 | Medium | - |
| | 1547 | 20°36' | 155°54' | X (40) | ? | - | Small | - |
| | 1615 | 20°32' | 155°56' | X (75) | ? | - | Small | - |
| 5/18 | 1820 | 20°15' | 156°06' | X (50) | ? | - | Small | - |
| | 0823 | 20°06' | 157°56' | X (50) | - | - | - | - |
| | 1235 | 20°47' | 157°54' | X (150) | ? | - | Medium | - |
| | 1350 | 20°54' | 157°57' | X (160) | ? | - | Medium | - |
| 5/20 | 1125 | 21°03.5' | 158°10' | X (100) | ? | - | - | - |
| | 1350 | 21°00' | 158°14' | X (150) | ? | - | - | - |
| | 1730 | 20°40' | 158°32' | X (40) | Skipjack | 2 | - | - |
| | 0930 | 21°14' | 157°56' | - | - | - | - | - |
| 5/21 | 0910 | 19°02' | 159°47' | - | - | - | - | 20 Porpoise school |
| 5/22 | 1755 | 20°49' | 161°07' | X (75) | ? | - | - | - |
| 5/23 | 1200 | 22°35' | 160°37' | - | - | - | - | - |
| | 0710 | 22°21' | 160°55' | X (200) | Skipjack | - | - | - |
| | 0910 | 22°21' | 160°46' | X (150) | Skipjack | 15 | Medium | - |
| | 1215 | 22°36.5' | 160°37' | X (50) | ? | - | ? | - |
| 5/24 | 1232 | 24°29' | 160°38' | X (30) | Skipjack | 12-15 | Small | - |
| 5/25 | 1030 | 22°10' | 158°04' | X (50) | Skipjack | 3 | Small | - |
| | 0640 | 22°37' | 158°28' | - | - | - | - | 2 Whales |
| 5/26 | 1410 | 21°36' | 157°32' | X (40) | Skipjack | - | Small | - |
| | 1435 | 21°43' | 157°30' | X (50) | Skipjack | - | Small | - |
| | 1720 | 21°50' | 157°18' | X (200) | ? | - | - | - |
| | 1750 | 21°52' | 157°13' | X (75) | ? | - | - | - |
| 5/27 | 1815 | 21°55' | 157°10.5' | X (75) | ? | - | - | - |
| | 0725 | 23°08' | 155°26' | X (50) | Skipjack | 8-12 | Medium | - |
| | 0805 | 23°12' | 155°26' | X (50) | ? | Small | Small | - |
| | 0855 | 23°18' | 155°20' | X (30) | ? | - | Small | - |
| | 1320 | 23°45' | 154°44' | - | - | - | - | (?) Porpoise school |
| 5/31 | 0743 | 19°17' | 156°04' | - | - | - | - | 50 Porpoise school |

^{1/} X = Bird flock.

() = Number birds in flock.

^{2/} ? = Species not determined.

Table 22.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Charles H. Gilbert cruise 45

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface fish schools | | Size of school | Aquatic mammals | |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|-----------------|----------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | | Whales | Porpoise |
| 7/7 | 1215 | 21°24' | 158°12' | X (100) | Skipjack | Medium | Medium | | |
| | 1305 | 21°24' | 158°16' | X (150) | Skipjack | 4-5 | Large | | |
| 7/8 | 1450 | 21°24' | 158°16' | X (75) | Skipjack | 6 | Medium | | |
| | 0950 | 21°23' | 158°17' | X (200) | Skipjack | 22-25 | - | | |
| 7/9 | 0820 | 21°09' | 157°47' | X (75) | ? 2/ | - | Medium | | |
| | 0843 | 21°08' | 157°46' | X (100) | ? | - | - | | |
| | 0910 | 21°07' | 157°45' | X (250) | ? | - | Medium | | |
| | 1010 | 21°02' | 157°45' | X (500) | ? | - | - | | |
| | 1050 | 21°01' | 157°43' | X (500) | Skipjack | 18 | Medium | | |
| | 1205 | 21°02' | 157°29' | - | - | - | - | | |
| | 1225 | 21°06' | 157°38' | X (100) | ? | - | - | | |
| | 1240 | 21°07' | 157°38' | X (1000) | Skipjack | - | - | | |
| | 1610 | 21°10' | 157°48' | X (150) | Skipjack | 4 | Medium | | |
| | 1705 | 21°06' | 157°48' | X (75) | ? | - | Small | | |
| 7/10 | 1725 | 21°04' | 157°46.5' | X (1000) | ? | - | - | | |
| | 1810 | 21°03' | 157°46' | X (1000) | Little Tunny | - | - | | |
| | 1003 | 21°07' | 157°44' | X (375) | ? | - | Large | | |
| | 1032 | 21°06' | 157°45' | X (100) | - | - | - | | |
| | 1040 | 21°05' | 157°45' | X (350) | ? | - | Large | | |
| | 1206 | 21°12' | 158°14' | X (75) | Skipjack | 20 | Medium | | |
| 7/12 | 1316 | 21°18' | 158°07' | X (30) | Skipjack | 20 | Medium | | |
| | 0755 | 21°29.5' | 158°16' | X (30) | Yellowfin | - | Small | | |
| 7/13 | 0805 | 21°29.5' | 158°18' | X (950) | Yellowfin | - | Small | | |
| | 0925 | 21°26' | 158°29' | - | Yellowfin | - | Small | | |
| | 1135 | 21°19' | 158°22' | X (50) | Skipjack | 3-5 | Medium | | |
| | 1355 | 21°15' | 158°16' | - | - | - | - | | |
| 7/14 | 0925 | 21°15' | 158°12' | X (25) | ? | - | Small | | |
| | 0945 | 21°14' | 158°13' | X (30) | ? | - | Small | | |
| | 1128 | 21°26' | 158°20' | - | - | - | - | | 200 FF* |
| | 1148 | 21°29' | 158°20' | X (40) | Skipjack | - | - | | |
| 7/17 | 1315 | 21°27' | 158°17' | X (40) | - | - | - | | |
| | 1344 | 20°59' | 158°12' | X (150) | Skipjack | 15-20 | - | | |
| 7/18 | 0637 | 19°11' | 159°50' | X (75) | - | - | - | | 300 FF* |
| | 0810 | 19°01' | 159°58' | - (100) | - | - | - | | |
| | 1050 | 18°42' | 160°19' | X (125) | - | - | - | | |
| | 1121 | 18°34.5' | 160°18' | X (125) | - | - | - | | |
| | 1420 | 18°18' | 160°37' | X (75) | ? | - | - | | |
| | 1450 | 18°16.5' | 160°39' | X (75) | ? | - | Medium | | 300 FF* |
| | 1635 | 18°06' | 160°50' | X (100) | ? | - | - | | |
| | 1745 | 17°59' | 160°59' | X (300) | ? | - | Large | | |

^{1/} X = Bird flock.

() = Number birds in flock.

2/ ? = Species not determined.

* Flying Fish.

Table 22.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Charles H. Gilbert cruise 45 (con.)

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface fish schools | | | Aquatic mammals | |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|-----------------|--------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | Whales | Porpoise |
| 7/19 | 1848 | 18°06' | 161°07' | X (75) | ? 2/ | - | - | | |
| | 1917 | 18°08' | 161°10' | X (100) | ? | - | - | | |
| | 0730 | 19°12' | 162°24' | X (200) | Skipjack | 18 | Large | | |
| | 1020 | 19°30' | 162°42' | X (200) | ? | - | Large | | |
| | 1045 | 19°32' | 162°44' | X (3000) | Skipjack | 18 | Large | | |
| | 1125 | 19°36' | 162°49' | X (100) | ? | - | Medium | | |
| | 1245 | 19°45' | 162°57' | X (150) | ? | - | - | | |
| | 1335 | 19°50' | 163°01.5' | X (100) | Skipjack | - | - | | |
| | 1400 | 19°53.5' | 163°04' | X (200) | ? | - | Large | | |
| | 1445 | 19°59' | 163°08' | X (30) | ? | - | Small | | |
| | 1530 | 20°04' | 163°13' | X (100) | ? | 20 | Large | | |
| | 1540 | 20°05' | 163°13' | X (150) | ? | - | Large | | |
| | 1701 | 20°14' | 163°21' | X (100) | ? | - | Large | | |
| | 1710 | 20°15.5' | 163°22' | X (50) | ? | - | Small | | |
| | 1754 | 20°21' | 163°27' | X (75) | - | - | Medium | | |
| | 0823 | 21°55.5' | 164°50' | X (300) | ? | - | Large | | |
| 7/20 | 0932 | 22°09' | 165°02' | X (30) | ? | - | Small | | |
| 7/22 7/23 | 1120 | 22°14' | 165°07' | X (75) | ? | - | Medium | | |
| | 1358 | 24°08.5' | 165°47' | X (75) | Skipjack | 4-6 | Small | | |
| | 1010 | 25°11' | 162°43' | - | Skipjack | 2-3 | Small | | |
| | 1300 | 25°19' | 162°15' | - | - | - | - | | |
| 7/24 7/25 | 1740 | 25°31' | 161°31' | - | - | - | - | | |
| | 1835 | 23°22' | 159°11' | X (15) | Skipjack | 3-5 | - | | |
| | 0700 | 22°04' | 157°51' | - | - | - | - | | |
| | 1005 | 22°19' | 157°25' | X (100) | Skipjack | 30 | Medium | | |
| 7/27 | 1410 | 22°27' | 157°12' | - | - | - | - | | |
| | 1345 | 23°46' | 152°45' | X (7) | Skipjack | 30 | Medium | | |
| | 1450 | 23°37' | 152°44' | X (75) | Skipjack | 30 | Small | | |
| | 0845 | 21°00' | 152°40' | X (15) | Skipjack | - | Medium | | |
| 7/28 | 1315 | 20°17' | 152°42' | X (50) | ? | - | Small | | |
| | 1550 | 19°42' | 152°43' | - | ? | - | Small | | |
| | 1738 | 16°52' | 154°19.5' | - | - | - | - | | |
| | 0708 | 17°21' | 156°11' | X (100) | Skipjack | 10-12 | Medium | | |
| 7/29 7/30 | 0825 | 17°31' | 156°16' | - | - | - | - | | |
| | 0833 | 17°32' | 156°17' | X (150) | - | - | - | | |
| | 1030 | 17°51' | 156°26' | X (25) | ? | - | Large | | |
| | 1108 | 17°57' | 156°29.5' | X (75) | ? | - | Small | | |
| | 1217 | 18°08' | 156°34.5' | X (15) | ? | - | Small | | |
| | 1230 | 18°10' | 156°36' | X (100) | ? | - | - | | |
| | 1526 | 18°37' | 156°49' | X (50) | ? | - | Small | | |
| | 1600 | 18°42' | 156°51.5' | X (200) | ? | - | Large | | |
| | 1625 | 18°45' | 156°53' | X (150) | ? | - | Large | | |
| | | | | | | | | 1 | |
| | | | | | | | | | 100 FF* 200 FF* |
| | | | | | | | | | 150 FF* |

^{1/} X = Bird flock.
() = Number birds in flock.
2/ ? = Species not determined.
* Flying Fish.

Table 22.--Record of surface fish school, bird flock, and aquatic mammal sightings,
Charles H. Gilbert cruise 45 (con.)

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface fish schools | | | Aquatic mammals | |
|---------------|-------------|----------|----------|---------------------------------------|----------------------|------------------------|-------------------|-----------------|-------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | Whales | Porpoise Other |
| 8/2 | 0900 | | | X (75) | ? 2/ | 40 | Small | | |
| | 0920 | | | X (500) | Yellowfin | 40 | Small | | |
| | 1050 | | | X (35) | ? | - | Small | | |
| | 1113 | | | X (75) | Yellowfin | 50 | Small | | |
| | 1436 | | | X (50) | ? | - | Small | | |
| | 1620 | | | X (40) | - | - | - | | |
| 8/3 | 1630 | | | X (500) | Skipjack | 6 | Large | | |
| | 0910 | | | X (350) | ? | - | Large | | |
| | 1143 | | | X (200) | Skipjack | 10 | Large | | |
| | 1455 | | | X (100) | ? | - | - | | |
| | 1603 | | | X (300) | Skipjack | - | Large | | |
| | 0806 | | | X (50) | ? | - | - | | |
| 8/4 | 0810 | | | X (50) | ? | - | - | | |
| | 0920 | | | X (50) | ? | - | - | | |
| | 0958 | | | X (50) | Skipjack | - | Small | | |
| | 1114 | | | X (50) | Skipjack | 25 | Large | | |
| | 1125 | | | X (50) | ? | - | Large | | |

1/ X = Bird flock.

() = Number birds in flock.

2/ ? = Species not determined.

Table 23.--Record of surface fish school, bird flock, and aquatic mammal sightings
Charles H. Gilbert cruise 46

| Date, 1959 | Time LZT | Position | | Bird flock sightings ^{1/} | Surface Fish Schools | | | Aquatic mammals |
|---------------|-------------|----------|-----------|---------------------------------------|----------------------|------------------------|-------------------|--------------------|
| | | Lat. N. | Long. W. | | Species | Size of fish (lbs.) | Size of school | |
| 9/29 | 1130 | 20°32' | 157°30' | X (200) | ? ^{2/} | - | - | - |
| 10/1 | 0825 | 17°35' | 155°16' | X (50) | Dolphin | - | - | - |
| 10/3 | 1620 | 20°46' | 153°04' | X (30) | - | - | - | - |
| 10/7 | 0645 | 21°13' | 157°42' | X (36) | - | - | - | - |
| 10/8 | 0920 | 21°03' | 157°27' | X (50) | ? | - | - | - |
| | 1055 | 20°55' | 157°25' | X (40) | ? | - | - | - |
| | 1115 | 20°52' | 157°27' | X (70) | ? | - | - | - |
| | 1510 | 20°59' | 157°24' | X (200) | ? | - | Medium | - |
| | 1604 | 20°51' | 157°30' | X (150) | ? | - | - | - |
| 10/9 | 0810 | 18°59' | 158°52' | X (50) | - | - | - | - |
| | 0930 | 18°50' | 159°02' | X (30) | - | - | - | - |
| | 0945 | 18°49' | 159°04' | X (30) | - | - | - | - |
| | 1000 | 18°47' | 159°06' | X (150) | Skipjack | 10-18 | Large | - |
| | 1450 | 18°22.5' | 159°34' | X (30) | Skipjack | - | Small | - |
| | 1510 | 18°20' | 159°34' | X (30) | ? | - | Small | - |
| | 1810 | 18°05' | 159°54' | X (200) | Skipjack | Mixed | Large | - |
| 10/11 | 1330 | 16°34' | 162°10' | X (50) | ? | - | - | - |
| | 1721 | 16°53' | 162°43' | X (150) | Skipjack | 10-15 | Large | - |
| 10/12 | 1404 | 18°46' | 164°15.5' | X (75) | ? | - | - | - |
| 10/13 | 0915 | 16°45' | 166°17' | - | - | - | - | 1 Whale |
| | 0957 | 16°40' | 166°23' | X (18) | - | - | - | - |
| 10/14 | 1050 | 19°58' | 167°22' | X (16) | - | - | - | - |
| 10/15 | 1035 | 20°14' | 164°07' | X (15) | - | - | - | - |
| 10/16 | 1130 | 22°38' | 161°57' | X (110) | - | - | - | - |
| 10/17 | 1125 | 22°02' | 160°02' | - | - | - | - | 50 Porpoise |
| | 1416 | 22°10' | 159°48' | - | - | - | - | School porpoise |
| | 1425 | 22°13' | 159°47' | X (100) | Yellowfin | - | Medium | - |
| | 1530 | 22°16' | 159°45.5' | X (250) | - | - | - | - |
| | 1006 | 21°31' | 158°18' | - | - | - | - | 8 Porpoise |

^{1/} X = Bird flock.

() = Number birds in flock.

^{2/} ? = Species not determined.

Table 24.--Summary of longline catch data

| Cruise | Station | Date, 1959 | Position | | Skipjack | Yellowfin | Bigeye Tuna | Dolphin | Mahoe | Striped Marlin | Black Marlin | Marlin | Sailfish | Shortnosed Spearfish | Great Blue Shark | Silky Shark | Whitetip Shark | *Mackerel Shark | Shark (Sp.) | Lancet Fish | Puffer | Total |
|-----------------------|---------|---------------|----------|-----------|----------|-----------|-------------|---------|-------|----------------|--------------|--------|----------|----------------------|------------------|-------------|----------------|-----------------|-------------|-------------|--------|-------|
| | | | Lat. N. | Long. W. | | | | | | | | | | | | | | | | | | |
| Hugh M. Smith 50 | 4 | 1/13 | 12°50.5' | 149°41' | | 2 | | 5 | 1 | | | 2 | | | 2 | 1 | 1 | | | | | 14 |
| | 6 | 1/14 | 15°08' | 149°37' | | | | 2 | 1 | | | | | | | | | 1 | | | | 4 |
| | 8 | 1/15 | 17°16' | 149°17.5' | | | 3 | 2 | | | | | | | | | | | | | | 5 |
| | 10 | 1/16 | 16°39' | 147°11' | | | | 16 | | | | 1 | | 2 | 1 | | | | | | | 20 |
| | 14 | 1/20 | 21°02' | 148°00' | | | | | | 2 | | | | | | | | | | | | 2 |
| | 16 | 1/21 | 23°02' | 148°03' | | | | 7 | | | | | | | | | | | 1 | | | 8 |
| | 18 | 1/22 | 24°32' | 149°15' | 3 | | | 11 | | 1 | | | | | 1 | | | | | | | 16 |
| | 23 | 1/26 | 22°47' | 153°05' | | | 1 | 2 | 1 | | | | | | 1 | | | | | 1 | | 6 |
| | 29 | 2/2 | 18°48' | 165°49' | | | | 3 | | 1 | | | | | 1 | | | | | | | 5 |
| | 32 | 2/4 | 16°23' | 170°03' | | | | | | | | | | | | | | | | 1 | | 1 |
| | 38 | 2/9 | 19°10' | 160°03' | | | 2 | | | 3 | | | | | 3 | | | | | | | 8 |
| | | | | TOTAL | 3 | 2 | 6 | 48 | 3 | 7 | | 3 | | 2 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 89 |
| Hugh M. Smith 51 | 6 | 3/13 | 18°23.5' | 147°31' | | 3 | 3 | 5 | 1 | | | | | 3 | | | | | 2 | | | 17 |
| | 9 | 3/15 | 14°48' | 150°13' | | 1 | 3 | 5 | | 2 | | | | | | | | | | | | 11 |
| | 18 | 3/23 | 20°29' | 161°06' | | | 1 | 3 | | | | | | | | | | | 5 | | | 9 |
| | 25 | 3/31 | 19°03' | 146°34' | | | 1 | 1 | | 1 | | | | | | | | | | 1 | | 4 |
| | 28 | 4/2 | 16°24' | 150°22' | | | | 3 | | | | | | | | | | | | | | 3 |
| | 29 | 4/4 | 21°47' | 153°25' | | | 1 | 2 | | 1 | | | | | | | | | 3 | | | 7 |
| | | | | TOTAL | | 4 | 9 | 19 | 1 | 4 | | | | 3 | | | | | 10 | 1 | | 51 |
| Charles H. Gilbert 44 | 5 | 5/2 | 22°27' | 161°02' | | 1 | | | 1 | 2 | | | | | | | | | | | | 4 |
| | 8 | 5/4 | 19°07' | 160°56' | | | | | | 1 | | | | | | | | | | | | 1 |
| | 12 | 5/11 | 17°17.5' | 151°29' | | | | | | 1 | 1 | | | | 1 | | 2 | | | | | 5 |
| | 16 | 5/14 | 22°19' | 154°25' | | | | | | | | | | | | | 1 | | | | | 1 |
| | 18 | 5/15 | 24°04.5' | 154°19' | | | | 1 | 1 | | | | | | | | | | | | | 2 |
| | | | | TOTAL | | 1 | | 1 | 2 | 4 | 1 | | | | 1 | | 3 | | | | | 13 |
| Charles H. Gilbert 46 | 12 | 10/2 | 17°00' | 153°25' | | 1 | 2 | 1 | | | | | | | 2 | | 2 | | | 1 | | 9 |
| | 15 | 10/4 | 22°52' | 152°57' | | | | 2 | | 1 | | | | | 1 | | 1 | | | | | 5 |
| | 20 | 10/10 | 16°25' | 160°15' | 1 | | | 1 | | | | | 2 | | 1 | | 1 | | | | | 6 |
| | | | | TOTAL | 1 | 1 | 2 | 4 | | 1 | | | 2 | | 4 | | 4 | | | 1 | | 20 |

* Not positively identified. Described in Longline Fishing Log as having blue pointed snout, large teeth and dark spots on ventral surface.

Table 25.--Summary of surface trolling catch data

| Cruise | Date, 1959 | Time LZT | Position | | Catch Species | Catch Number |
|------------------------------|---------------|-------------|----------|-----------|------------------|-----------------|
| | | | Lat. N. | Long. W. | | |
| <u>Hugh M. Smith</u> 50 | 1/10 | 0940 | 18°34' | 155°40' | dolphin | 1 |
| | 1/10 | 1310 | 18°12' | 155°21' | " | 1 |
| | 1/11 | 0820 | 16°03' | 153°30' | " | 1 |
| | | 0825 | 16°02' | 153°28' | bigeye | 1 |
| | 1/13 | 1000 | 12°50' | 149°38' | dolphin | 1 |
| | | 1215 | 12°51' | 149°39' | " | 1 |
| | 1/15 | 1225 | 17°14.5' | 149°00' | " | 1 |
| | 1/16 | 0900 | 16°43' | 147°20.5' | dolphin | 1 |
| | 1/20 | 0925 | 21°02' | 148°00' | " | 1 |
| | 1/24 | 1400 | 19°09' | 153°09' | " | 1 |
| | 1/27 | 0925 | 20°40.5' | 154°22.5' | " | 1 |
| | 1/29 | 0900 | 18°00' | 158°06' | " | 1 |
| | 2/6 | 1745 | 14°24' | 167°30.5' | " | 1 |
| | 2/7 | 0930 | 14°40' | 164°0.8' | " | 1 |
| | | 1610 | 15°16' | 163°36' | " | 1 |
| <u>Hugh M. Smith</u> 51 | 3/6 | 1705 | 23°41' | 155°11' | " | 1 |
| | | 1800 | 23°47' | 155°08' | " | 1 |
| | 3/14 | 1150 | 15°27' | 148°39' | " | 3 |
| | 3/16 | 0925 | 16°55' | 152°13.5' | " | 1 |
| | | | | | wahoo | 2 |
| | 3/26 | 1400 | 22°05' | 155°12' | dolphin | 1 |
| | | 1530 | 22°12' | 155°04' | " | 1 |
| | 3/27 | 1530 | 23°51' | 152°11' | " | 2 |
| | 3/29 | 0950 | 23°32' | 147°29' | " | 1 |
| <u>Charles H. Gilbert</u> 44 | 5/1 | 1310 | 24°05' | 159°02' | " | 1 |
| | 5/5 | 1245 | 20°00' | 162°54' | " | 2 ^{1/} |
| | 5/16 | 0945 | 21°30' | 155°29.5' | " | 1 |
| | 5/20 | 1155 | 21°04' | 158°09' | " | 2 |
| | 5/23 | 1040 | 22°25' | 160°36.5' | wahoo | 1 |
| <u>Charles H. Gilbert</u> 45 | 7/23 | 1300 | 25°19' | 162°15' | dolphin | - ^{2/} |
| | 7/25 | 0700 | 22°04' | 157°51' | " | 1 |
| | 7/28 | 1500 | 19°42' | 152°43' | " | 1 |
| <u>Charles H. Gilbert</u> 46 | 10/1 | 0830 | 17°36' | 155°17' | " | 1 |
| | | 1100 | 17°35' | 155°04' | " | 2 |
| | 10/13 | 1812 | 17°32' | 167°01' | " | 2 |
| | 10/15 | 1525 | 20°38' | 163°39' | " | 1 |
| | | 1555 | 20°42' | 163°31' | " | 1 |

^{1/} Sighted from vessel, not caught.^{2/} "A few," sighted from vessel near floating log.

Table 26.--Summary of skipjack tagging

| Cruise | Date, 1959 | Position | | Number tagged | Average size (cm.) |
|------------------------------|---------------|----------|----------|------------------|-----------------------|
| | | Lat. N. | Long. W. | | |
| <u>Hugh M. Smith</u> 51 | 3/22 | 22°48' | 161°45' | 11 | 42.7 |
| | 3/22 | 22°21' | 161°35' | 40 | 44.4 |
| | 3/23 | 20°30' | 161°31' | 5 | 63.7 |
| <u>Charles H. Gilbert</u> 44 | 5/23 | 22°20' | 160°55' | 7 | 61.1 |
| | 5/25 | 22°10' | 158°04' | 29 | 41.6 |
| <u>Charles H. Gilbert</u> 45 | 7/25 | 22°31' | 157°03' | 76 | 76.4 |
| | 8/19 | 21°18' | 158°13' | 14 | 47.8 |
| <u>Charles H. Gilbert</u> 46 | 10/9 | 18°41' | 159°14' | 54 | 65.0 |
| | | | | 236 | |

Table 27.--Common and scientific names of fishes reported

| <u>Common Name</u> | <u>Scientific Name</u> |
|----------------------|--|
| Mackerel Shark | <u>Lamna ditropis</u> (Hubbs and Follett) |
| Great Blue Shark | <u>Prionace glauca</u> (Linnaeus) |
| Silky Shark | <u>Eulamia floridanus</u> (Bigelow, Schroeder, and Springer) |
| Whitetip Shark | <u>Pterolamiops longimanus</u> (Poey) |
| Lancet Fish | <u>Alepisaurus</u> sp. |
| Flying Fish | <u>Exocoetidae</u> |
| Skipjack | <u>Katsuwonus pelamis</u> (Linnaeus) |
| Bigeye Tuna | <u>Parathunnus sibi</u> (Temminck and Schlegel) |
| Yellowfin | <u>Neothunnus macropterus</u> (Temminck and Schlegel) |
| Wahoo | <u>Acanthocybium solandri</u> (Cuvier and Valenciennes) |
| Shortnosed Spearfish | <u>Teptrapturus angustirostris</u> Tanaka |
| Marlin | <u>Makaira</u> sp. |
| Black Marlin | <u>Istiompax marlina</u> (Jordan and Hill) |
| Striped Marlin | <u>Makaira audax</u> (Philippi) |
| Sailfish | <u>Istiophorus orientalis</u> (Temminck and Schlegel) |
| Dolphin | <u>Coryphaena hippurus</u> Linnaeus |
| Puffer | <u>Lagocephalus lagocephalus</u> (Linnaeus) |

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